



**US Army Corps  
of Engineers**  
Portland District

# **Final Phase Two Evaluation Report and Finding of No Significant Impact/ Environmental Assessment**

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## **Columbia River Treaty Fishing Access Sites**



**Prepared by  
Portland District  
U.S. Army Corps of Engineers**

**April 1995**

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## ABBREVIATIONS AND ACRONYMS

BLM	Bureau of Land Management
BIA	Bureau of Indian Affairs
BPA	Bonneville Power Administration
CAR	Coordination Act Report
CRGNSA	Columbia River Gorge National Scenic Area
Corps	U.S. Army Corps of Engineers
DEA	David Evans and Associates
DOI	Department of Interior
EA	Environmental Assessment
EIS	Environmental Impact Statement
EM	Engineering Manual
EPA	U.S. Environmental Protection Agency
ER	Engineering Regulation
ESA	Endangered Species Act
FONSI	Finding of No Significant Impact
four Tribes	Nez Perce Tribe, the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs Indian Reservation of Oregon, and the Yakama Indian Nation
FWS	U.S. Fish and Wildlife Service
FY	Fiscal Year
HTRW	Hazardous, Toxic, and Radioactive Waste
MCASES	Micro Computer Aided Cost Engineering System
MOA	Memorandum of Agreement
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
ODFW	Oregon Department of Fish and Wildlife
OM&R	Operations, Maintenance, and Repair
OPRD	Oregon State Parks and Recreation Department
P.L.	Public Law
RM	River Mile
SHPO	State Historic Preservation Officer
SLI	Site Location Index
SOR	Systems Operation Review
SR	State Road
USGS	U.S. Geological Survey



# Draft Phase Two Evaluation Report

Public Law 100-581, Title IV

Columbia River Treaty Fishing Access Sites

April 1995



**Draft Phase Two Evaluation Report  
Columbia River Treaty Fishing Access Sites**

**Table of Contents**

EXECUTIVE SUMMARY .....	S-1
1. INTRODUCTION .....	1-1
1.1 General .....	1-1
1.2 Project Background .....	1-3
1.2.1 General .....	1-3
1.2.2 Treaties .....	1-3
1.3 Status of Laws and Agreements .....	1-3
1.3.1 General .....	1-3
1.3.2 The 1939 Agreement .....	1-4
1.3.3 The 1972 Agreement .....	1-4
1.3.4 Senate Hearing .....	1-5
1.3.5 Acquisition Sites .....	1-6
1.3.6 Master Plan .....	1-8
1.4 Losses to Native American Culture from Construction of Bonneville Dam .....	1-9
1.4.1 Introduction .....	1-9
1.4.2 The Contact Period .....	1-9
1.4.3 Treaty Period .....	1-10
1.4.4 Bonneville Period (1930) .....	1-10
1.4.5 Bonneville (1994) .....	1-11
1.4.6 Historic Facilities .....	1-11
1.4.8 Past and Present .....	1-12
1.5 Related Studies .....	1-12
1.6 Public Involvement .....	1-13
1.6.1 Public Meetings .....	1-13
1.6.2 Public Review .....	1-14
1.7 Project Authority .....	1-15
1.8 Project Purpose and Scope .....	1-17
1.9 Site Selection Process .....	1-19
1.10 Planning Process .....	1-20
2. PLAN FORMULATION .....	2-1
2.1 Existing Conditions .....	2-1
2.1.1 General .....	2-1
2.1.2 Site Descriptions .....	2-1
2.1.3 Acquisition Sites .....	2-14
2.2 Result of No Federal Action .....	2-14
2.3 Problems and Opportunities .....	2-14
2.4 Study Purpose and Scope .....	2-15
2.4.1 Levels of Output .....	2-15

## Table of Contents (continued)

2.4.2 Development Features . . . . .	2-16
2.4.3 Alternative Sites . . . . .	2-17
2.4.4 Environmental Impacts . . . . .	2-17
2.4.5 Cultural Resources . . . . .	2-17
2.4.6 Requirements of Public Law 100-581 . . . . .	2-17
2.4.7 Site Development and Facility Criteria . . . . .	2-18
2.4.8 River Access Facilities . . . . .	2-22
2.4.9 Land-Based Facilities . . . . .	2-22
2.4.10 Fixed Costs . . . . .	2-23
2.5 Constraints . . . . .	2-23
2.6 Site Evaluations . . . . .	2-24
2.6.1 Legislated Site - 401 (a) . . . . .	2-24
2.6.2 Acquisition Sites - 401(b) . . . . .	2-24
2.7 Alternatives Considered . . . . .	2-25
2.7.1 Introduction . . . . .	2-25
2.7.2 Wind River In-lieu Fishing Site . . . . .	2-26
2.7.3 Cooks Inlet In-lieu Fishing Sites. . . . .	2-28
2.7.4 Avery Treaty Fishing Access Site. . . . .	2-30
2.7.5 Celilo Treaty Fishing Access Site. . . . .	2-32
2.7.6 Maryhill Treaty Fishing Access Site. . . . .	2-36
2.7.7 Cliffs Treaty Fishing Access Site. . . . .	2-39
2.7.8 Rufus Treaty Fishing Access Site. . . . .	2-40
2.7.9 Preachers Eddy Treaty Fishing Access Site. . . . .	2-43
2.7.10 North Shore Treaty Fishing Access Site. . . . .	2-45
2.7.11 LePage Treaty Fishing Access Site. . . . .	2-48
2.7.12 Goodnoe Treaty Fishing Access Site. . . . .	2-51
2.7.13 Pasture Point Treaty Fishing Access Site. . . . .	2-54
2.7.14 Rock Creek Treaty Fishing Access Site. . . . .	2-57
2.7.15 Sundale Treaty Fishing Access Site. . . . .	2-58
2.7.16 Roosevelt Treaty Fishing Access Site. . . . .	2-61
2.7.17 Pine Creek Treaty Fishing Access Site. . . . .	2-65
2.7.18 Threemile Canyon Treaty Fishing Access Site. . . . .	2-67
2.7.19 Alderdale Treaty Fishing Access Site. . . . .	2-70
2.7.20 Crow Butte Treaty Fishing Access Site. . . . .	2-72
2.7.21 Faler Road Treaty Fishing Access Site. . . . .	2-77
2.7.22 Boardman Treaty Fishing Access Site . . . . .	2-80
2.7.23 Acquisition Sites. . . . .	2-81
2.8 Evaluation of Alternatives. . . . .	2-84
2.8.1 Wind River In-lieu Fishing Site. . . . .	2-84
2.8.2 Cooks Inlet In-lieu Fishing Site. . . . .	2-86
2.8.3 Avery Treaty Fishing Access Site. . . . .	2-86
2.8.4 Celilo Treaty Fishing Access Site. . . . .	2-88

## Table of Contents (continued)

2.8.5 Maryhill Treaty Fishing Access Site. . . . .	2-91
2.8.6 Cliffs Treaty Fishing Access Site. . . . .	2-92
2.8.7 Rufus Treaty Fishing Access Site. . . . .	2-94
2.8.8 Preachers Eddy Treaty Fishing Access Site. . . . .	2-95
2.8.9 North Shore Treaty Fishing Access Site. . . . .	2-97
2.8.10 LePage Treaty Fishing Access Site. . . . .	2-98
2.8.11 Goodnoe Treaty Fishing Access Site. . . . .	2-100
2.8.12 Pasture Point Treaty Fishing Access Site. . . . .	2-101
2.8.13 Rock Creek Treaty Fishing Access Site. . . . .	2-103
2.8.14 Sundale Treaty Fishing Access Site. . . . .	2-104
2.8.15 Roosevelt Treaty Fishing Access Site. . . . .	2-105
2.8.16 Pine Creek Treaty Fishing Access Site. . . . .	2-107
2.8.17 Threemile Canyon Treaty Fishing Access Site . . . . .	2-109
2.8.18 Alderdale Treaty Fishing Access Site. . . . .	2-110
2.8.19 Crow Butte Treaty Fishing Access Site. . . . .	2-112
2.8.20 Faler Road Treaty Fishing Access Site. . . . .	2-113
2.8.21 Boardman Treaty Fishing Access Site. . . . .	2-114
2.8.22 Acquisition Sites. . . . .	2-115
2.9 Summary . . . . .	2-115
 3. IDENTIFIED PLAN . . . . .	 3-1
3.1 General Design . . . . .	3-1
3.2 Development Plan . . . . .	3-3
3.2.1 Phase One Sites . . . . .	3-3
3.2.2 Wind River In-Lieu Fishing Site . . . . .	3-4
3.2.3 Cooks Inlet In-Lieu Fishing Site. . . . .	3-4
3.2.4 Avery Treaty Fishing Access Site. . . . .	3-5
3.2.5 Celilo Treaty Fishing Access Site . . . . .	3-6
3.2.6 Maryfield Treaty Fishing Access Site. . . . .	3-7
3.2.7 Rufus Treaty Fishing Access Site. . . . .	3-8
3.2.8 Preachers Eddy Treaty Fishing Access Site . . . . .	3-9
3.2.9 North Shore Treaty Fishing Access Site . . . . .	3-9
3.2.10 LePage Treaty Fishing Access Site . . . . .	3-10
3.2.11 Goodnoe Treaty Fishing Access Site. . . . .	3-11
3.2.12 Pasture Point Treaty Fishing Access Site . . . . .	3-12
3.2.13 Rock Creek Treaty Fishing Access Site . . . . .	3-13
3.2.14 Sundale Treaty Fishing Access Site. . . . .	3-13
3.2.15 Roosevelt Treaty Fishing Access Site . . . . .	3-13
3.2.16 Moonay Treaty Fishing Access Site. . . . .	3-15
3.2.17 Pine Creek Treaty Fishing Access Site. . . . .	3-16
3.2.18 Threemile Canyon Treaty Fishing Access Site. . . . .	3-16
3.2.19 Alderdale Treaty Fishing Access Site . . . . .	3-17

## Table of Contents (continued)

3.2.20 Alder Creek Treaty Fishing Access Site . . . . .	3-18
3.2.21 Crow Butte Treaty Fishing Access Site . . . . .	3-18
3.2.22 Faler Road Treaty Fishing Access Site . . . . .	3-18
3.2.23 Acquisition Sites 1 through 6 . . . . .	3-20
3.3 Summary . . . . .	3-25
4. RESULTS OF PLAN IMPLEMENTATION . . . . .	4-1
4.1 Fish and Wildlife . . . . .	4-1
4.2 Environmental Assessment . . . . .	4-2
4.3 Cultural Resources . . . . .	4-5
4.4 Real Estate . . . . .	4-5
4.5 Cost Estimate . . . . .	4-7
4.6 Economics . . . . .	4-10
4.7 Hazardous, Toxic and Radiological Wastes (HTRW) . . . . .	4-10
4.8 Schedule . . . . .	4-10
4.9 Operations, Maintenance, and Site Regulation . . . . .	4-12
4.10 Cost Allocation Plan . . . . .	4-15
5. CONCLUSIONS AND RECOMMENDATIONS . . . . .	5-1
5.1 Conclusions . . . . .	5-1
5.2 Recommendations . . . . .	5-2
North Pacific Division Recommendations . . . . .	5-3
6. BIBLIOGRAPHY . . . . .	6-1

## Tables

Table S-1 -- Estimated Total Project Costs Without Inflation . . . . .	S-3
Table 1-1 -- Site Selection . . . . .	1-21
Table 2-1 -- Alternative 1, Wind River In-Lieu Fishing Site (RM 155) . . . . .	2-26
Table 2-2 -- Alternative 2, Wind River In-Lieu Fishing Site . . . . .	2-27
Table 2-3 -- Alternative 1, Cooks Inlet In-Lieu Fishing Site . . . . .	2-29
Table 2-4 -- Alternative 2, Cooks Inlet In-Lieu Fishing Site . . . . .	2-29
Table 2-5 -- Alternative 1, Avery Treaty Fishing Access Site . . . . .	2-31
Table 2-6 -- Alternative 2, Avery Treaty Fishing Access Site . . . . .	2-31
Table 2-7 -- Alternative 4, Avery Treaty Fishing Access Site . . . . .	2-31
Table 2-8 -- Alternative 1, Celilo Treaty Fishing Access Site (RM 201.5) . . . . .	2-33
Table 2-9 -- Alternative 2, Celilo Treaty Fishing Access Site (RM 201.5) . . . . .	2-34
Table 2-10 -- Alternative 3, Celilo Treaty Fishing Access Site (RM 201.4) . . . . .	2-34
Table 2-11 -- Alternative 4, Celilo Treaty Fishing Access Site (RM 201.5) . . . . .	2-35
Table 2-12 -- Alternative 5, Celilo Treaty Fishing Access Site (RM 201.5). . . . .	2-35



## Table of Contents (continued)

Table 2-13 -- Alternative 1, Maryhill Treaty Fishing Access Site (RM 208) .....	2-37
Table 2-14 -- Alternative 2, Maryhill Treaty Fishing Access Site .....	2-38
Table 2-15 -- Alternative 1, Cliffs Treaty Fishing Access Site (RM 214) .....	2-39
Table 2-16 -- Alternative 2, Cliffs Treaty Fishing Access Site (RM 214) .....	2-40
Table 2-17 -- Alternative 1, Rufus Treaty Fishing Access Site (RM 212.4) .....	2-41
Table 2-18 -- Alternative 2, Rufus Treaty Fishing Access Site .....	2-41
Table 2-19 -- Alternative 3, Rufus Treaty Fishing Access Site .....	2-42
Table 2-20 -- Alternative 4, Rufus Treaty Fishing Access Site .....	2-42
Table 2-21 -- Alternative 1, Preachers Eddy Treaty Fishing Access Site (RM 213.5) ..	2-44
Table 2-22 -- Alternative 2, Preachers Eddy Treaty Fishing Access Site (RM 213.5) ..	2-44
Table 2-23 -- Alternative 3, Preachers Eddy Treaty Fishing Access Site (RM 213.5) ..	2-45
Table 2-24 -- Alternative 1, North Shore Treaty Fishing Access Site (RM 215.9) ....	2-46
Table 2-25 -- Alternative 2, North Shore Treaty Fishing Access Site (RM 215.9) ....	2-46
Table 2-26 -- Alternative 3, North Shore Treaty Fishing Access Site (RM 215.9) ....	2-47
Table 2-27 -- Alternative 4, North Shore Treaty Fishing Access Site (RM 215.9) ....	2-47
Table 2-28 -- Alternative 1, LePage Treaty Fishing Access Site .....	2-49
Table 2-29 -- Alternative 2, LePage Treaty Fishing Access Site .....	2-50
Table 2-30 -- Alternative 3, LePage Treaty Fishing Access Site .....	2-51
Table 2-31 -- Alternative 1, Goodnoe Treaty Fishing Access Site .....	2-52
Table 2-32 -- Alternative 2, Goodnoe Treaty Fishing Access Site .....	2-53
Table 2-33 -- Alternative 3, Goodnoe Treaty Fishing Access Site .....	2-53
Table 2-34 -- Alternative 1, Pasture Point Treaty Fishing Access Site .....	2-55
Table 2-35 -- Alternative 2, Pasture Point Treaty Fishing Access Site .....	2-56
Table 2-36 -- Alternative 3 Pasture Point Treaty Fishing Access Site .....	2-56
Table 2-37 -- Alternative 1, Rock Creek Treaty Fishing Access Site .....	2-57
Table 2-38 -- Alternative 2, Rock Creek Treaty Fishing Access Site .....	2-58
Table 2-39 -- Alternative 3, Rock Creek Treaty Fishing Access Site .....	2-58
Table 2-40 -- Alternative 1, Sundale Treaty Fishing Access Site .....	2-59
Table 2-41 -- Alternative 2, Sundale Treaty Fishing Access Site .....	2-60
Table 2-42 -- Alternative 3, Sundale Treaty Fishing Access Site .....	2-61
Table 2-43 -- Alternative 1, Roosevelt Treaty Fishing Access Site .....	2-62
Table 2-44 -- Alternative 2, Roosevelt Treaty Fishing Access Site .....	2-63
Table 2-45 -- Alternative 3, Roosevelt Treaty Fishing Access Site (RM 241) .....	2-64
Table 2-46 -- Alternative 4, Roosevelt Treaty Fishing Access Site .....	2-64
Table 2-47 -- Alternative 1, Pine Creek Treaty Fishing Access Site .....	2-65
Table 2-48 -- Alternative 2, Pine Creek Treaty Fishing Access Site .....	2-66
Table 2-49 -- Alternative 3, Pine Creek Treaty Fishing Access Site (RM 250.2) .....	2-66
Table 2-50 -- Alternative 4, Pine Creek Treaty Fishing Access Site (RM 250.2) .....	2-67
Table 2-51 -- Alternative 1, Threemile Canyon Fishing Access Site .....	2-68
Table 2-52 -- Alternative 2, Threemile Canyon Fishing Access Site .....	2-69
Table 2-53 -- Alternative 3, Threemile Canyon Fishing Access Site .....	2-69
Table 2-54 -- Alternative 4, Threemile Canyon Fishing Access Site .....	2-70

## Table of Contents (continued)

Table 2-55 -- Alternative 1, Alderdale Treaty Fishing Access Site . . . . .	2-71
Table 2-56 -- Alternative 2, Alderdale Treaty Fishing Access Site . . . . .	2-71
Table 2-57 -- Alternative 3, Alderdale Treaty Fishing Access Site . . . . .	2-72
Table 2-58 -- Alternative 1, Crow Butte Treaty Fishing Access Site . . . . .	2-73
Table 2-59 -- Alternative 2, Crow Butte Treaty Fishing Access Site (RM 262) . . . . .	2-74
Table 2-60 -- Alternative 3, Crow Butte Treaty Fishing Access Site . . . . .	2-75
Table 2-61 -- Alternative 4, Crow Butte Treaty Fishing Access Site . . . . .	2-76
Table 2-62 -- Alternative 1, Faler Road Treaty Fishing Access Site . . . . .	2-78
Table 2-63 -- Alternative 2, Faler Road Treaty Fishing Access Site (RM 267.5) . . . . .	2-79
Table 2-64 -- Alternative 1, Boardman Treaty Fishing Access Site (RM 269) . . . . .	2-80
Table 2-65 -- Alternative 2, Boardman Treaty Fishing Access Site (RM 269.1) . . . . .	2-81
Table 2-66 -- Summary of Costs for Avery . . . . .	2-88
Table 2-67 -- Summary of Costs for Celilo . . . . .	2-90
Table 2-68 -- Summary of Costs for Maryhill . . . . .	2-92
Table 2-69 -- Summary of Costs for Cliffs . . . . .	2-93
Table 2-70 -- Summary of Costs for Rufus . . . . .	2-95
Table 2-71 -- Summary of Costs for Preachers Eddy . . . . .	2-96
Table 2-72 -- Summary of Costs for North Shore . . . . .	2-98
Table 2-73 -- Summary of Costs for LePage . . . . .	2-100
Table 2-74 -- Summary of Costs for Goodnoe . . . . .	2-101
Table 2-75 -- Summary of Costs for Pasture Point . . . . .	2-102
Table 2-76 -- Summary of Costs for Rock Creek . . . . .	2-103
Table 2-77 -- Summary of Costs for Sundale . . . . .	2-104
Table 2-78 -- Summary of Costs for Roosevelt . . . . .	2-106
Table 2-79 -- Summary of Costs for Pine Creek . . . . .	2-108
Table 2-80 -- Summary of Costs for Threemile Canyon . . . . .	2-110
Table 2-81 -- Summary of Costs for Alderdale . . . . .	2-111
Table 2-82 -- Summary of Costs for Crow Butte . . . . .	2-113
Table 2-83 -- Summary of Costs for Faler Road . . . . .	2-114
Table 2-84 -- Summary of Costs for Boardman . . . . .	2-115
Table 2-85 -- Acceptability Evaluation Summaries for The Bonneville, The Dalles, and John Day Pools . . . . .	2-116
Table 2-86 -- Project Summary . . . . .	2-120

## Table of Contents (continued)

Table 3-1 -- Columbia River Treaty Fishing Access Sites (Phase One and Phase Two) . . .	3-2
Table 3-2 -- Proposed Development, Wind River In-Lieu Fishing Site . . . . .	3-4
Table 3-3 -- Proposed Development, Cooks Inlet In-Lieu Fishing Site . . . . .	3-5
Table 3-4 -- Proposed Development, Avery Treaty Fishing Access Site . . . . .	3-6
Table 3-5 -- Proposed Development, Celilo Treaty Fishing Access Site . . . . .	3-7
Table 3-6 -- Proposed Development, Maryhill Treaty Fishing Access Site . . . . .	3-8
Table 3-7 -- Proposed Development, Rufus Treaty Fishing Access Site . . . . .	3-9
Table 3-8 -- Proposed Development, Preachers Eddy Treaty Fishing Access Site . . . . .	3-10
Table 3-9 -- Proposed Development, North Shore Treaty Fishing Access Site . . . . .	3-10
Table 3-10 -- Proposed Development, LePage Treaty Fishing Access Site . . . . .	3-11
Table 3-11 -- Proposed Development, Goodnoe Treaty Fishing Access Site . . . . .	3-12
Table 3-12 -- Proposed Development, Pasture Point Treaty Fishing Access Site . . . . .	3-12
Table 3-13 -- Proposed Development, Rock Creek Treaty Fishing Access Site . . . . .	3-13
Table 3-14 -- Proposed Development, Sundale Treaty Fishing Access Site . . . . .	3-14
Table 3-15 -- Proposed Development, Roosevelt Treaty Fishing Access Site . . . . .	3-15
Table 3-16 -- Proposed Development, Pine Creek Treaty Fishing Access Site . . . . .	3-16
Table 3-17 -- Proposed Development, Threemile Canyon Fishing Access Site . . . . .	3-17
Table 3-18 -- Proposed Development, Alderdale Treaty Fishing Access Site . . . . .	3-17
Table 3-19 -- Proposed Development, Crow Butte Treaty Fishing Access Site . . . . .	3-19
Table 3-20 -- Proposed Development, Faler Road Treaty Fishing Access Site . . . . .	3-20
Table 3-21 -- Proposed Development, Lyle . . . . .	3-21
Table 3-22 -- Proposed Development, Wind River . . . . .	3-22
Table 3-23 -- Proposed Development, Stanley Rock . . . . .	3-23
Table 3-24 -- Proposed Development, White Salmon . . . . .	3-24
Table 3-25 -- Proposed Development, Dallesport . . . . .	3-24
Table 3-26 -- Proposed Development, Bingen Boat Channel . . . . .	3-25
Table 3-27 -- Proposed Facilities at the Treaty Fishing Access Sites . . . . .	3-26
Table 4-1 -- Location of Environmental Assessment Documentation . . . . .	4-4
Table 4-2 -- Total Project Costs . . . . .	4-9
Table 4-3 -- OM&R Costs by Site . . . . .	4-13
Table 4-4 -- Capitalized OM&R Costs for Each Contract Without Contingency . . . . .	4-14
Table 4-5 -- Capitalized OM&R Costs With Contingency . . . . .	4-14
Figure 1-1 -- Location Map, Legislated Sites . . . . .	1-2
Figure 1-2 -- Location Map, Phase One . . . . .	1-18
Figure 1-3 -- Location Map, Proposed Sites . . . . .	1-22



## EXECUTIVE SUMMARY

The purpose of this Phase Two Evaluation Report is to present the identified plan for the Columbia River Treaty Fishing Access Sites project; and therefore, proceed to implementation of Public Law 100-581, Title IV. Public Law 100-581 was signed into law on November 1, 1988. It directed the Secretary of the Army (Secretary) to acquire, develop, rehabilitate, improve and/or transfer lands for fishing access along the Columbia River for the four Tribes (the Nez Perce Tribe, the Confederated Tribes of Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon and the Confederated Tribes and Bands of the Yakama Indian Nation).

Public Law 100-581 referenced 23 sites for fishing by the four Tribes. These sites are adjacent to the Columbia River in Oregon and Washington for development and transfer to the Department of Interior, Bureau of Indian Affairs (BIA).

The law specified rehabilitation of five in-lieu fishing sites which are under the jurisdiction of BIA. Additionally, P.L. 100-581 specified the acquisition and subsequent development of six additional sites, from willing sellers, on the Bonneville pool. The total costs, excluding costs directly involved in the transfer of jurisdiction, for the acquired lands is not to exceed \$2 million.

Under P.L. 100-581 the Secretary is to provide improvements such as, but not limited to, camping and park facilities to the same standards as those provided by the National Park Service; all-weather access roads and boat ramps; docks; sanitation; fish cleaning, curing, and ancillary fishing facilities; electrical and sewage facilities; and landscaping. The costs for implementation of these improvements are to be treated as project costs of the Columbia River projects. Allocation of these project costs will be to the respective purposes of those projects. P.L. 100-581 also required the level of development be determined in consultation with the four Tribes.

A Preliminary Engineering and Design (PED) program was initiated in 1990. That program divided the sites into two groups to accelerate implementation. The Phase One report was submitted to the Assistant Secretary of the Army for Civil Works on March 3, 1993, and recommended constructing one Treaty fishing access site (Bonneville Area Office, Washington) and three Section 401.(b) in-lieu fishing sites (Cascade Locks and Lone Pine, Oregon and Underwood, Washington). These sites do not require legislative boundary adjustments, were technically less difficult to implement, are on the Bonneville pool, have the highest use by the four Tribes, have minimal environmental impacts, and provide better river access for Tribal fishers in areas where conflicts have occurred between Tribal fishers and the recreational public.



This Phase Two Evaluation Report recommends constructing the balance of the sites and documents the total program. They include the nineteen treaty fishing access sites (Celilo, Preachers Eddy, Faler Road, Rufus, LePage, Threemile Canyon and Crow Butte in Oregon; and Roosevelt, Avery, Maryhill, North Shore, Goodnoe, Pasture Point, Rock Creek, Sundale, Moonay, Pine Creek, Alderdale and Alder Creek in Washington), two in-lieu fishing sites (Wind River and Cooks Inlet, Washington) and six acquisition sites on the Bonneville pool. **Treaty fishing access sites**, also known as 401.(a), refers to federal lands described on maps during the legislative process for P.L. 100-581. **In-lieu fishing sites** are the five existing sites developed in the 1950's. **Acquisition sites** are six additional sites to be purchased on the Bonneville pool from willing sellers.

A multi-disciplinary team evaluated alternative site locations and/or levels of development for each site. Key elements developed by the team included levels of output, applicable development features, environmental impacts, cultural resources, requirements of P.L. 100-581, site development and facility criteria, river access facilities, land-based facilities, and fixed costs. The criteria considered in evaluating alternatives were construction and total average annual costs, conflict avoidance benefits, tribal acceptability, avoidance of adverse environmental impacts, incremental cost analysis, site location index, and lessee and public concerns.

Proceeding with development of these sites would implement P.L. 100-581 and honor mitigation settlements for losses the four Tribes experienced from construction of Bonneville Dam more than 50 years ago. The estimated cost at October 1994 price levels, without inflation, for Phase One and October 1994 price levels, without inflation, for each of the Phase Two sites is listed in table S-1. These costs include the estimated costs for lands and damages; construction; cultural resource preservation; hazardous, toxic and radiologic wastes; planning, engineering and design; construction management, and operations and maintenance. Total estimated cost without inflation for the project's 31 sites is \$67,030,000, and with inflation is \$74,575,000.

This report recommends approval of 31 sites, Phase One and Phase Two, as described in Chapter 3, Identified Plan, of this report and the Phase One Report.



Table S-1 -- *Estimated Total Project Costs Without Inflation.*

SITE	ESTIMATED COST (\$)
<b>Phase Two Sites (Oct 1994 Price Level)</b>	
Celilo	3,649,000
Preachers Eddy	2,100,000
Roosevelt	1,630,000
Faler Road	1,721,000
Avery	1,572,000
Rufus	195,000
Maryhill	4,386,000
North Shore	521,000
LePage	1,585,000
Goodnoe	101,000
Pasture Point	4,697,000
Rock Creek	146,000
Sundale	1,531,000
Moonay	26,000
Pine Creek	4,926,000
Threemile Canyon	1,512,000
Alderdale	1,277,000
Alder Creek	30,000
Crow Butte	3,740,000
Wind River	154,000
Cooks Inlet	1,010,000
Lyle	3,589,000
Wind River (Acquisition)	3,480,000
Stanley Rock	3,120,000
White Salmon	3,308,000
Dallesport	1,245,000
Bingen	<u>868,000</u>
Subtotal	52,119,000
Operations & Maintenance	<u>7,471,000</u>
Subtotal	59,590,000
<b>Phase One Sites (Oct 1994 Price Level)</b>	
Operations & Maintenance	<u>1,594,000</u>
Subtotal	7,440,000
Total Project Cost	67,030,000

These costs may differ from those in the baseline cost estimate due to rounding.



## 1. INTRODUCTION

### 1.1 General

Public Law 100-581, was signed by President Reagan on November 1, 1988. The law directs the Secretary of the Army (Secretary) to provide a range of facility improvements, land transfers and acquisitions in support of Columbia River Treaty fishing activity.

Four sites were recommended for construction in the report, *Title IV, Columbia River Treaty Fishing Access Sites, Phase One Interim Evaluation Report, Public Law 100-581*, U.S. Army Corps of Engineers, October 1992 (Phase One Report).

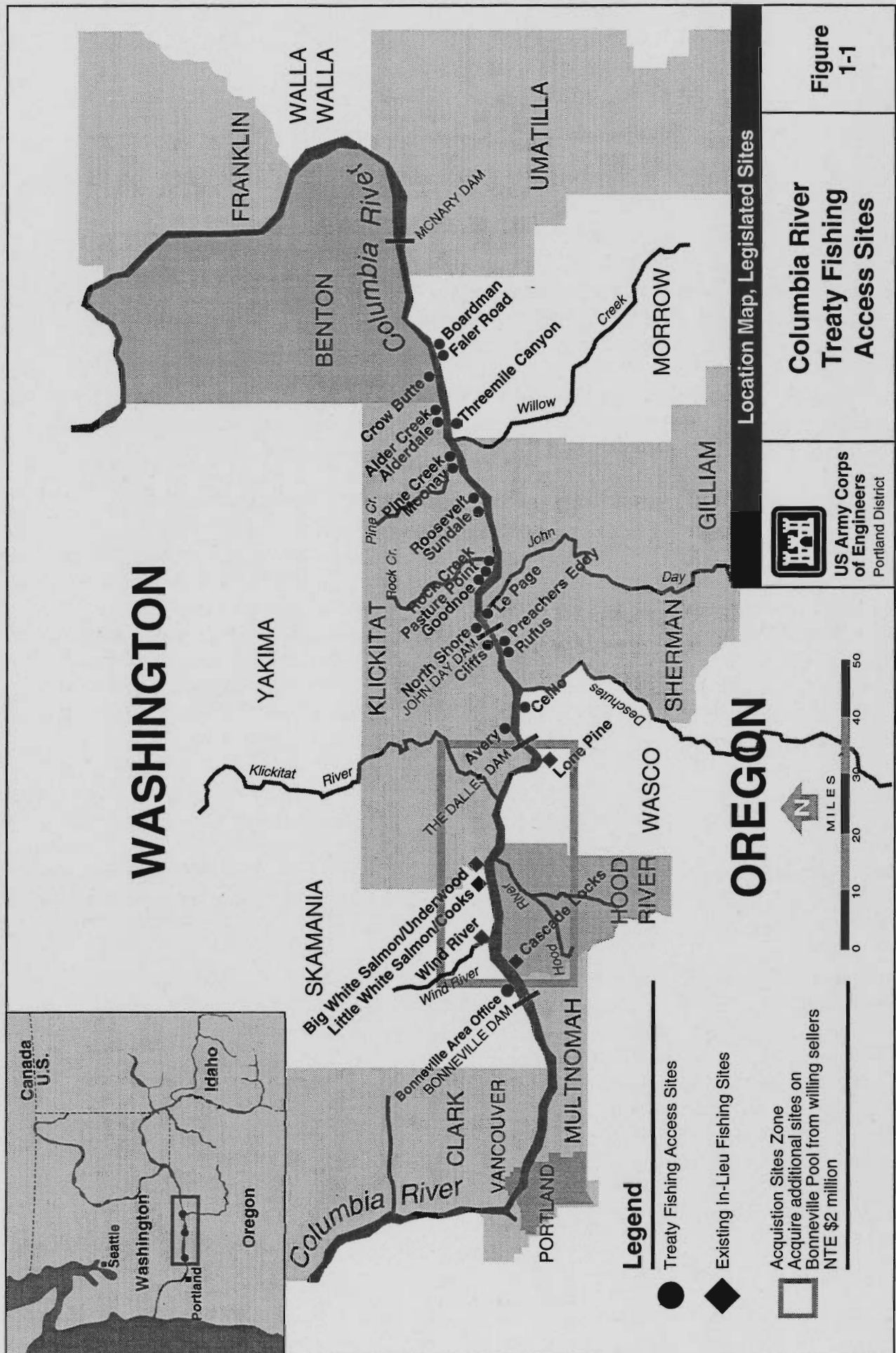
This report, "Phase Two Evaluation Report," recommends constructing the balance of the sites and provides cost information on implementing the project. See figure 1-1 for the in-lieu fishing sites, Treaty fishing access sites and acquisition site zone.

In this report, **in-lieu fishing site(s)** refers to the five existing sites developed in the 1950's by the Corps for preferential priority use by Tribal fishers. These federal lands were transferred to the Bureau of Indian Affairs (BIA). A 401.(a) site(s) refers to federal lands described on maps during the legislative process for P.L. 100-581 for preferential priority use by the Nez Perce Tribe, the Confederated Tribes of Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs Indian Reservation of Oregon, and the Yakama Indian Nation (referred to as four Tribes in this report). These sites are denoted as **Treaty fishing access sites** in this report. Additional sites on the Bonneville pool which are to be acquired from willing sellers will be referred to as **acquisition sites**. Criteria for these sites are described in Section 401.(b) of P.L. 100-581.

In August 1989, at public meetings along the Columbia River, the Corps outlined a program to implement P.L. 100-581. The first part of the program, the "Interim Management Plan," outlined the strategy by which the Corps would manage the newly designated Treaty fishing access sites until the sites are developed and transferred to BIA. According to this plan, the Corps, four Tribes and BIA would meet on a regular basis to address management strategies of the new sites.

The second part, a two-year Preconstruction Engineering and Design phase, was developed to respond to P.L. 100-581's diverse requirements. In order to expedite implementation of P.L. 100-581, the planning activities were divided into two phases.

The Phase One Report focused on sites with potential for expedited development and/or capability to reduce impacts to public parks. Generally, these sites do not require a legislated change. They do not require railroad crossings or improvements to county, state and/or interstate roadways for safe access to and from the site. Bonneville Area Office, Cascade Locks, Lone Pine and Underwood are the four sites in the Phase One Report approved for construction. The second phase (Phase Two), focuses on the remaining sites.



## 1.2 Project Background

### 1.2.1 General.

Native Americans of the Pacific Northwest have a long tradition of fishing on the Columbia River. Through treaties signed with the Federal Government in the 1850's, Indian Tribes reserved the right to fish at usual and accustomed fishing sites along the Columbia River. In 1905, and again in 1919, these fishing rights and the Native Americans' rights of access to their usual and accustomed fishing sites on the Columbia River were upheld by United States Supreme Court.

In the 1930's, the Secretary was directed by Congress to study the feasibility of constructing and operating dams on the Columbia River. The Corps completed studies and began construction of Bonneville Dam in 1933. The Bonneville pool inundated approximately 40 usual and accustomed Indian fishing places from the dam site to The Dalles, Oregon. Sections 1.2.2 through 1.3.4 summarize agreements and actions taken with respect to the provision of federal lands along the shoreline of the Columbia River.

### 1.2.2 Treaties.

In 1855, Yakama, Umatilla, Warm Springs, and Nez Perce Tribes first entered into treaties which were ratified in 1859. Under these treaties, the Tribes ceded to the Federal Government all Indian title to the lands other than the reservations that they currently occupy in the Columbia River Basin and reserved for themselves the right to fish the banks of the lower Columbia River.

Since the treaties were approved, the Federal Government, through the Army Corps of Engineers, has constructed four multi-purpose dams on the mainstem of the lower Columbia River in Oregon and Washington. The four dams on the Columbia River mainstem generate 6,040 megawatts of hydroelectric power and provide navigation facilities to carry approximately 6.4 million tons of cargo annually. These dams also provided nearly 4.5 million recreation user days in 1986. The Department of Interior and other private and public utility districts have also constructed power generation projects on the main stem of the Columbia and Snake Rivers and other tributary streams.

## 1.3 Status of Laws and Agreements

### 1.3.1 General.

There are two agreements, one reached in 1939 and another in settlement of a lawsuit in 1972, which affect the provisions of in-lieu sites. In addition, the 1945 River and Harbor Act authorized acquisition of unspecified sites and facilities, subject to fiscal limitations.



### 1.3.2 The 1939 Agreement.

An agreement was negotiated with the Indian Tribes for inundation of their accustomed fishing sites in 1939 and approved in 1940 by the Secretary of War. The agreement called for the Government to acquire more than 400 acres of land at six described sites to serve as "in-lieu" fishing sites. The Corps was to make certain improvements thereon, and thereafter turn the sites over to BIA, to be administered for the permanent use and enjoyment of the Indian Tribes.

Section 2 of the 1945 River and Harbor Act was the Congressional implementation of the agreement. Congress authorized the Secretary of War "...to acquire lands and provide facilities...to replace Indian fishing grounds submerged or destroyed as a result of the construction of Bonneville Dam...". Funds not exceeding \$50,000 were authorized to be expended for this purpose. This amount proved inadequate for acquisition and was subsequently raised by Congress in 1955, to \$185,000. However, the Act did not specify the number, location, or size of the sites to be acquired.

Because of disagreements among the various parties to the agreement of 1939, not all the sites outlined in the agreement were acquired, and some sites were substituted. In all, five tracts, totaling 40 acres, were purchased for the use and benefit of the Native Americans. The decisions concerning acquisition of the sixth site and disposition of the balance of the funds for improvement of the sites authorized by the 1945 River and Harbor Act were approved by the Umatilla, Warm Springs, Yakama and Nez Perce governing bodies.

### 1.3.3 The 1972 Agreement.

Based on the original authorization for construction of Bonneville Dam, in the late 1960's and early 1970's the BPA and the Corps began studies to enlarge the capacity of the existing Bonneville power-generating capability. This was accomplished by raising the water levels behind the dam to generate additional power at peak loads to help meet the Pacific Northwest Power requirements. This proposal was the subject of a lawsuit, *Confederated Tribes of the Umatilla Indian Reservation v. Callaway*, in the U.S. District Court in Oregon. At issue was the effect of change in the levels of the Bonneville pool on certain in-lieu sites, and on salmonoid fish migration.

A settlement to *Confederated Tribes of the Umatilla Indian Reservation v. Callaway* was reached in 1972 between the Executive Branch of the Federal Government and the Indian Tribes. The Executive Branch agreed to try to obtain additional authority from Congress to acquire additional in-lieu sites for the Tribes for fishing sites lost in the Bonneville, the Dalles, and John Day Pools, and to improve the facilities at the existing in-lieu sites in the Bonneville Pool. In the 1972 agreement, the original authorization in 1945 was limited to the Bonneville Pool.



The District Court Decision on the Confederated Tribes case recognized that the federal agencies had no authority to acquire additional in-lieu fishing sites. The decision noted that the agencies were recommending to the Office of Management and Budget legislation for the acquisition of additional in-lieu fishing sites in the lower Columbia River and for construction of improvements on the existing sites. Such facilities would include access roads, boat ramps, sanitary, fish cleaning, curing, and other ancillary facilities with electrical service and landscaping.

In order to fulfill the settlement which was negotiated in 1972, the Corps had constructed the additional improvements to the in-lieu fishing sites. In addition, proposed legislation was submitted to Congress in 1974 under the signature of the Secretary of the Army, Howard H. Callaway, to authorize acquisition of additional in-lieu sites at Bonneville, The Dalles, and John Day Dams. Such legislation, however, was never enacted. In summary, the Corps did not have authority to acquire in-lieu sites under the 1945 River and Harbor Act, as amended.

#### 1.3.4 Senate Hearing.

In the 1970's and 1980's, the pressures on existing treaty fishing sites began to increase in response to improving fish runs on the Columbia River. Also, public use on the river was on the rise and competition for the limited available river access was increasing as the Columbia River Gorge became more popular for windsurfing, fishing and general recreation. National attention was focused on the Columbia River Gorge as the Columbia River Gorge National Scenic Area legislation passed and was signed into law. Further, a recent lawsuit in the U.S. District Court of Oregon (October 1987, David Sohapp, et. al. versus Donald Hodel, et. al.) highlighted issues pertaining to tribal requests for additional lands to replace those submerged by the construction of Bonneville Dam and the issue of regulation of use at the existing in-lieu fishing sites. This well publicized case and other attention focused on the Columbia River helped heighten Congressional interest in these issues.

During 1987 and 1988, the four Tribes identified sites on the Columbia River suitable for additional fishing access and support. During this same period, the Secretary was called to appear before the United States Senate Select Committee on Indian Affairs where the Corps testified that transfer of additional lands to the four Tribes for fishing access could not be accomplished without Congressional authorization. The Senate Select Committee on Indian Affairs staff then drafted legislation to authorize the transfer of a portion of the lands previously identified by the four Tribes to the Secretary of the Interior for administration as Treaty Fishing Access Sites. Congress directed the Secretary of the Army to administer the new law upon its passage.

### 1.3.5 Acquisition Sites.

The area designated for land acquisition is the shore lands adjacent to the Bonneville pool on the Columbia River from river miles (RM) 146 to 192. The Bonneville pool is within the Columbia River Gorge National Scenic Area (CRGNSA) beginning at the Bonneville Lock and Dam and continuing upstream to The Dalles Lock and Dam. Much of the pool margins are sheer basalt cliffs. A small portion of the shore lands are beach and/or gently sloping shoreline. The beaches are small and widely scattered, while the gently sloping shorelines are narrow and limited in extent. Much of these lands have been used for roads, railroads, recreational parks, and industrial sites.

The site selection process for the acquisition sites, Section 401(b), focused primarily on identifying land adjacent to the Bonneville pool capable of supporting Treaty fishing. The criteria used in selecting sites was based on development capability. Each site must have the capability to provide vehicular access from existing highways and roads, safe crossing of existing railroads, boat access onto the Bonneville pool, and support facilities for Tribal fishers. All services must be cost-effective as well.

For the initial evaluation process on the six sites to be acquired adjacent to the Bonneville pool, the Corps contracted with David Evans and Associates (DE&A), a local engineering consulting firm, (C.O.E. In-lieu Fishing Access Study Columbia River, DE&A, Inc., November 25, 1991) to identify potential fishing access sites. In addition, the sites were to be ranked by priority for development potential. This was accomplished by a series of tasks including reviewing related documents, selecting sites based on review of aerial photos and topographic maps, conducting on-site investigations, researching ownership of the properties, reviewing critical resources, and documenting the process with maps and site information forms.

DE&A reviewed several of the Corps documents associated with Treaty fishing access sites, mainly the Working Document (December 1990), Public Information Document (August 1989), and Public Information Fact Sheet (June 1989). Other documents reviewed were the Senate Briefing Book (Columbia River Inter-Tribal Fish Commission) and briefing material (Legislation briefing materials).

Secondly, DE&A developed a map of the project area identifying 58 potential Treaty fishing access sites adjacent to the Bonneville pool and the Columbia River. These sites were chosen using suitability criteria such as topography, vehicular and Columbia River access, and development potential as evaluated from aerial photographs and United States Geological Survey (USGS) quadrangle maps.

A preliminary screening of the 58 sites was performed by the staff from Portland District, BIA (Portland), Columbia River Gorge Commission, and Forest Service in a meeting coordinated by DE&A. Sites were eliminated if they were known to have poor vehicular or river access, critical wildlife habitat, poor development potential, unstable slopes, or

ownership constraints. Thirty-five sites (18 on the north side of the river and 17 on the south side) were identified by the group for further investigation as potential Treaty fishing access sites.

DE&A personnel conducted a field reconnaissance to evaluate the suitability of the 35 sites for Treaty fishing access development. This process was documented for each site on a form developed by DE&A, highlighting suitability characteristics essential for development. These characteristics included road access, safe railroad crossing, approximate acres, topography, soils/rock, shoreline condition, beach, vegetation, boat ramp and campground potential, and general information. Also provided was a property assessment that included the legal site description, tax lot number(s), owner(s), land value, value of improvements, and existing land use.

A packet of the 35 sites including completed data forms, vicinity maps (with site boundary), aerial photographs, and tax lot maps for each site was forwarded to US Fish Wildlife Service, State of Oregon Historical Preservation Office, and State of Washington Historical Office for review and comment. No response was received by the State of Washington Historical Office. Information from the Oregon State Historical Preservation Office was limited to comments on selected site maps with no significant findings recognized.

The DE&A report included a prioritized ranking of sites by development suitability. The sites were assigned to one of three categories (very limited, moderate, and good potential) depending on the individual site's development suitability. Those sites having very limited development potential were observed to have restricting physical characteristics (steep shoreline, rock outcrop, irregular topography, etc.), potential land use conflict (public access for fishing and wind surfing, near-shore log storage, etc.), and probable high development costs. Sites considered to have good development potential were those with favorable physical characteristics and development costs, as well as few or no land use conflicts.

Accordingly, 14 sites were predicted to have good development potential (seven on the north side and an equal number on the south side of Bonneville pool, Columbia River). Seven sites were classified as having moderate development potential and 14 sites as having very limited development potential.

Determination of Willing Seller Sites. With the information presented in the DE&A Report, the Corps approached property owners in an effort to identify willing sellers on the Bonneville pool for possible future development of Treaty fishing access. Letters were sent to those property owners whose property was identified as having moderate or good potential for development in the David Evans Report soliciting their interest as willing sellers.

There were 21 properties within the moderate and good potential category. Positive responses were received from 14 property owners. Plate 62, Vicinity Map, Bonneville pool identifies the 14 willing seller sites. Rights of entry to further evaluate each site were obtained from property owners who indicated a willingness to sell their property.

### 1.3.6 Master Plan.

In 1990 the U.S. Army Corps of Engineers, Portland District, began updating the Master Plans for Bonneville, The Dalles and John Day projects (locks and dams) on the Columbia River in Oregon and Washington. The Corps is required to develop Master Plans on Civil Works projects and other fee-owned land administered by the Corps. These Master Plans are for the management of natural and human-made resources and show existing and proposed facilities for federally administered lands.

Due to the impacts of P.L. 100-581 on the physical development opportunities of the three dam projects, an analysis of the effects of P.L. 100-581 on federal project lands was conducted by the Corps as a component of the three Columbia River projects master planning process. The analysis was documented in a report titled *Columbia River Projects, Master Plan for Resource Use, Columbia River, Oregon and Washington, Working Document - Development Suitability Analysis of Critical Management Units*, Portland District, December 1990 (*Working Document*).

For the analysis contained in the *Working Document*, the federal project lands were grouped into Critical Management Units. Sixteen Critical Management Units were chosen for the three projects, six units in Oregon and ten in Washington. The analysis identified those areas within the Critical Management Units suitable for river access facility development, either for Treaty fishing or public access and/or recreation. The suitability analysis involved: (1) identifying locations, as well as the extent of land for development, for potential access sites based on physical factors, (2) preparing conceptual plans for river access development on the identified sites, and comparing development suitability for sites within each Critical Management Unit.

The boundaries for the Critical Management Units were loosely defined. In some cases a management unit contained only one Treaty fishing access site, while other management units contained two or more sites. For more in-depth detail, refer to the *Working Document* which is available from the Corps, Portland District. The *Working Document* was submitted to the four Tribes for review and comments; no comments were forwarded to the Corps.

An interdisciplinary study team developed the working document methodology for the suitability analysis (Appendix A). The team compiled the following: a field inventory of potential river access sites within each Critical Management Unit; applicable federal, state, and local design standards for river access development; development alternatives for the Treaty fishing access sites; a comparative analysis for alternatives within each Critical Management Unit; and conceptual drawings for each potential site.

Results of the suitability analysis in the *Working Document* along with additional information developed during the planning process were used in discussions with the four Tribes, BIA, and federal lessees in the final selection of the Treaty fishing access sites for the Phase One and Phase Two evaluation reports. Where applicable, the most suitable site was chosen and identified in the final implementation plan. In some cases the identified site was not the



legislated site, and a legislative amendment is required prior to implementation of the selected plan. The suitability analysis provided a data base for decision-making for the preconstruction engineering and design phase. In summary, the *Working Document* provided the following for initial planning:

- The general design criteria for development of Treaty fishing access sites included: *Recreation Planning and Design Criteria, Engineering Manual* (EM) 1110-1-400; *Design of Recreation Areas and Facilities - Access and Circulation*, EM 1110-2-410; and other applicable criteria (federal, state, and local) for sanitary facilities, water distribution systems, highway approaches, boat ramps, and railroad crossings.

- Other adjacent federal lands were identified for consideration as Treaty fishing access sites in an attempt to better separate incompatible uses, especially at public parks impacted by P.L. 100-581. Alternatives were developed for those legislated sites that had physical constraints limiting site development.

- Data and information on physical site conditions such as topography, soil types, adjacent river hydraulics and water depths were gathered for analysis.

#### **1.4 Losses to Native American Culture from Construction of Bonneville Dam**

##### **1.4.1 Introduction.**

American Indian losses in the region of the Columbia River were extensive and compounding. Their losses involved social and cultural values and included some of the remaining, permanently and intermittently occupied settlements; sophisticated fishing procurement and preservation methods; and places where ceremonial traditions were practiced. The Tribes' assessment of Indian cultural losses are include in Appendix N.

The relationship of lost opportunities and the construction of dams and locks on the Columbia River are complex. The losses accrued with the construction of Bonneville Lock and Dam came on top of consequences from contact with Euro-Americans, not quite a century ago. Lost opportunities began with Euro-American occupation and settlement of the Columbia River shoreline. It was further reduced by treaties of the mid-1800's which reduced access to the Columbia River shoreline and its fishing sites. Fishing opportunities decreased with construction of Bonneville Dam and other Columbia River projects. Flooding by the pools behind the dams reduced fish populations and fish habitat.

##### **1.4.2 The Contact Period.**

According to aboriginal tradition, the people maintained a self-regulating socio-political and religious system for thousands of years. Climatological changes, environmental fluctuations, and population movements brought minor changes to this stable culture. These shifts were nearly imperceptible at the time, and may be noted as gradual shifts in the archaeological record.

The contact period brought confusion, misunderstanding, resentment, restraint of movement, and conflicting claims over the use and exclusion from traditional resources or places. Further, Native Americans were exposed to new contagious diseases, resulting in a high mortality rate and thus upsetting the balance of an established lifestyle.

#### 1.4.3 Treaty Period.

Most of the treaties between the Federal Government and Native Americans of the Pacific Northwest were made between the mid-and the late 1800's. These treaties document the ceding of a substantial amount of territory. Under a treaty clause recognizing the right of access to "usual and accustomed" places, access to traditional places was retained.

Access to usual and accustomed places required an adjustment to traditional lifestyles. The U.S. Government linked property ownership with exclusive rights of access. This concept was in contrast to the American Indian seasonal patterns of use. According to custom or tradition, specific places were used periodically to harvest fish or other seasonal resources and/or practice traditional ceremonies.

Traditional salmon fishing used dip nets, gaffs, and weirs, which were used in rapids, shallows, or at great water falls, such as Celilo Falls. As traditional sites were lost, traditional fishing methods were refined and new techniques evolved. By the early 1900's, Native Americans adapted their lifestyle and continued to fish within the confines of the treaty. Although the number of fishing sites eliminated was initially small, the loss had a major impact on the Native American lifestyle.

#### 1.4.4 Bonneville Period (1930).

The construction of Bonneville Dam in the 1930's disrupted a lifestyle that had made some adaptation to western colonization during the treaty period and subsequent exclusion from traditional places. Native Americans within the lower Columbia region fell back to another state of confusion, disenfranchisement and imbalance. Any previous social, religious, or economic adaptation was now shifting toward another social and emotional crisis.

Construction of Bonneville Dam further reduced the number of traditional fishing sites and their access to campsites, boat launches, and parking. It also reduced the number of salmon, which resulted in smaller fish catches. Additionally, the Native Americans' mobility became increasingly limited. These limitations further weakened nuclear and extended family ties. Reduced connection to the past threatened religious beliefs, as well as ceremonial sites where oral traditions were practiced and passed onto the next generation.



#### 1.4.5 Bonneville (1994).

Although many of the traditional fishing sites are now submerged, these sites provide an association to the past without actually occupying the site. American Indian elders continue to struggle to adjust and stabilize their sociopolitical, religious and economic patterns. Some of the elders continue to speak with bitterness to the U.S. Government. They view the treatment of the Government as unequitable and unjust. They seek a lifestyle where traditional values can be maintained within the confines of the Government. They feel these values are in jeopardy and future generations may lose the guidelines offered by their traditions.

#### 1.4.6 Historic Facilities.

Traditional sites may have had both permanent and temporary buildings. Many of the river people lived in relatively permanent post and beam plank-sided houses. In some cases (perhaps seasonally) the planking would be removed, leaving the post and beams in place to be recovered by the planking during the next occupation. Sometimes the plank houses were occupied year-round.

Temporary structures used in the fishing camps would be erected from poles and woven mats, and occupied by the extended family and guests.

Large structures were divided into sleeping and storage areas. Cooking and fish processing were outside activities. Cooking and meeting areas contained hearths and camp rings; fish processing areas contained drying and smoking racks. Associated with these areas would be canoe landings and later motor boat launch ramps and parking areas. People who traveled on horses from the interior to river places used hitching posts, corrals, and pasturing meadows for their stock.

The facilities found at fishing sites were indicative of the technical sophistication and the depth of experience of traditional salmon fishery. These facilities may have been within the confines of villages or fishing camps, or dispersed along the river. They were used by families who lived in the villages. Particular individuals, families and in some cases an extended family group managed access to shoreline fishing places.

Fish were caught with dip nets and spears. Fishing involved standing on platforms erected on pilings driven into the river bed, or platforms suspended from the sides of steep basalt cliffs. Fish were also trapped using weirs, elaborate structures constructed in places where river depths were relatively shallow. Weirs were constructed of 'walls' of rock built in a funnel shape with the narrow end placed up stream. Migrating fish were caught in the neck of the weir where they were netted or speared. In deeper waters, Native Americans used drift nets suspended from floats, with the submerged edge weighted by anchor stones. Fixed nets tied to the bank, set perpendicular to the shoreline and anchored with rocks and suspended from floats, were used as well.

When an abundance of fish were taken, they were processed and preserved on site. Using traditional methods, fish were filleted and placed on drying or smoking racks. With the arrival of motor vehicles, fresh fish would be transported on ice for processing or consumption.

#### 1.4.8 Past and Present.

Traditional fishing methods continue to be practiced but have declined. Capturing available fish has become more difficult with access limitations, elimination of camping sites, and flooding of traditional places.

Traditional salmon ceremonies have a deep association to time and place and a strong relationship to family values. Ceremonial practices have been affected not because their significance is less, but because the places where ceremonial activities were practiced have been lost.

Although Bonneville Dam eliminated the direct association of ceremonies to particular fishing sites, especially those with a deep history of fishing, ceremonial activities continue to be carried out, renewing an ancient association to salmon fishing.

### 1.5 Related Studies

The Corps of Engineers is involved in a number of studies that will influence the management and use of resources in the Columbia River. Between 1988 and 1989, the Corps initiated several studies, primarily known as the *Columbia River Salmon Mitigation Analysis*, on the mitigation of impacts on salmon species caused by Corps dam projects. Originally the focus was on bypass structures for juvenile salmon. Recent events including Congressional action, the listing of several salmon species as endangered and the salmon summit have expanded the scope of the mitigation analysis. The mitigation analysis will now identify and evaluate a broad array of alternatives for mitigation with the following objectives: Establish a mitigation obligation based on an analytical foundation and historical record, develop a plan to implement a strategy, and actively participate in regional efforts to rebuild salmon runs.

The impact of the re-scoped mitigation analysis is unknown at this time but probably will prescribe changes in the management and operation of Corps projects.

The Corps is also participating in the systems Operation Review (SOR) with the BPA and Bureau of Reclamation. Initiated in the summer of 1990, this study aims to develop multiple-purpose management strategies for the Columbia River System. Four actions are proposed by the federal agencies: renew the Pacific Northwest Coordination Agreement, renew the Canadian Entitlement Allocation Agreement, develop and implement a system Operation Strategy, and implement a process for periodic review and update of the systems Operation Strategy. Refer to the Columbia River system Operation Review, Scoping Document (May 1991) for additional information. This document is available at the Corps, U.S. Bureau of Reclamation and Bonneville Power Administration Portland metropolitan area offices.

One of the products to be developed from the SOR is an integrated report/Environmental Impact Statement (EIS). The report and EIS will serve as the factual basis for decisions and provide data for a comprehensive comparison of a variety of alternatives for future actions. The integrated report and EIS is intended to reflect regional public and agency participation and strategy. The focus will be on solutions and recommendations for an appropriate balance among competing river uses such as power generation, flood control, irrigation, salmon, navigation and recreation, particularly board sailing. Federal operation of the Columbia River Projects will focus on a multiple-use concept.

The implementation of Columbia River Treaty fishing access sites was pursued in two phases. The Phase One Report recommended early action at Bonneville Area Office, Cascade Locks, Lone Pine and Underwood. These four sites are free of public impact, are technically less difficult to implement and are acceptable to the four Tribes. This Phase Two report will recommend constructing the balance of the sites as identified in P.L. 100-581. In addition, the Phase Two Report will provide program and cost estimating information on the total project, including Phase One recommended sites. Information pertaining to the Phase One sites can be found in the Phase One Report.

## **1.6 Public Involvement**

### **1.6.1 Public Meetings.**

The Corps conducted informational public meetings between August 1 and August 17, 1989, in Portland, The Dalles, Hood River, and Boardman, Oregon, and Goldendale and Richland, Washington, with representatives from the four Tribes and BIA.

The purpose of the meetings was to present the Corps' tasks and responses to P.L. 100-581 and the perspectives of the four Tribes and BIA. Public comments were solicited for consideration in the development of the interim management plan for this legislation until final implementation of P.L. 100-581.

The majority of comments from the meetings requested replacement of public use and access facilities lost by enactment of P.L. 100-581. The second most common topic identified was a concern for lost public use of river access facilities and public access along the Columbia River. A need for adequate sanitation and maintenance at the new sites was also expressed.

Other comments received during the public informational meetings ranged from single responses that dealt with specific personal desires to those that identified concerns for particular geographic areas. All comments received during the public information process were used in formulating the interim management plan. For further information on the public information process, refer to *Public Information Meetings/Public Responses, Public Law 100-581, Title IV, Columbia River Treaty Fishing Access Sites*, U.S. Army Corps of Engineers, Portland District, August 1989.

### 1.6.2 Public Review.

Comments were request on the Draft Phase Two Evaluation Report and Environmental Assessment between February 6 and March 7, 1995, from the public and resource agencies. The comment period was extended to March 16, 1995, to permit representatives of Benton and Klickitat Counties to provide their comments.

The comments are displayed in volume II, Appendix G by date, earliest to latest. Corps responses to the substantive comments are displayed on the same page adjacent to the comments. The substantive comments have been numbered sequentially within each letter, the corresponding response to each comment has been numbered as appropriate.

A number of comments were received from the Washington (state) Departments of Ecology and Fish and Wildlife, and the U.S. Fish and Wildlife Service. The majority of the comments requested avoidance of impacts to nearshore shallow water habitat, minimum development of in-water and over-water structures, treatment of storm-water from impervious surface, and proper treatment of site sewage.

Comments were provided on development of the White Salmon Treaty Fishing Access Site (acquisition) and suggested alternative locations of site facilities. However, the proposed development plan for this site and suggested alternative facility locations are conceptual.

Sherman County, Oregon, officials and residents submitted comments on the recommended development plan for the LePage Treaty Fishing Access Site, located within the LePage Park and administered by the Corps for public use. These individuals were concerned about the possible loss and/or impact on public recreation by development of this Treaty fishing access site.

Benton and Klickitat Counties, Washington, provided comments on the development plans of several Treaty fishing access sites including Alderdale, Avery, Crow Butte, Maryhill, North Shore, Roosevelt and Sundale. They are concerned about the possible loss and/or impact on public recreation by development of these Treaty fishing access sites.

Two letters were submitted by persons objecting to the Columbia River Treaty Fishing Sites Project and implementation. They were concerned about compensation of usual and accustomed fishing sites for the four Tribes, the cost of the project and operation and maintenance of the Treaty fishing access sites.

The Corps has responded to the comments provided during the public review process. These comments will be used in refining the design for the development plans during later phases of the project, including development of the engineering data report, plan and specifications.



## 1.7 Project Authority

P.L. 100-581 was signed into law by the President on November 1, 1988. This law provides the construction authority for the United States to satisfy its commitment to the four Tribes whose usual and accustomed fishing access sites were inundated by dam construction on the Columbia River. P.L. 100-581 directs the Secretary to undertake a wide range of facility improvements, land transfers, and acquisitions in support of the Columbia River Treaty fishing activity.

It is the intent of P.L. 100-581 that the newly identified Treaty fishing access sites be improved and subsequently transferred to BIA for use by the four Tribes. The law referenced 23 Treaty fishing access sites, marked on maps, along the Columbia River for development and transfer to the Department of Interior. Two of the sites named in the legislation, the North Dalles and Maryhill sites, are not managed by the Federal Government, and are not subject to P.L. 100-581. The lands to be transferred are federally managed or will be subsequently acquired on the Bonneville pool.

In addition to developing and transferring the 21 federal sites, the law directs the Secretary to identify, acquire from willing sellers at a cost not to exceed \$2 million, and develop additional acquisition sites on the Bonneville pool for Treaty fishing use. The legislation specifies that improvements be provided such as, but not limited to, boat ramps, boat docks, sanitary and camping facilities at all newly identified sites.

Along with development of new access sites, P.L. 100-581 directs the Secretary to make improvements at the five existing in-lieu fishing sites. These sites were developed by the Corps in the 1950's and transferred to BIA. Because an adequate number of fishing access sites was not provided to the four Tribes, the in-lieu sites have deteriorated from overuse and are in need of rehabilitation.

P.L.100-581 directs the Secretary of Army to treat the costs of implementing improvements on all sites as project costs of the Columbia River projects. The costs shall be allocated to the respective purposes of those projects in accordance with existing law applicable to allocation of the project costs.

P.L. 100-581 provides the Department of Interior the right to accept any federally managed lands that may be declared excess and offered for lease or sale along the Columbia River adjacent to the Bonneville, The Dalles or John Day pools. The law authorized the Secretary to provide up to 360 acres of shore lands along the Bonneville, The Dalles and/or John Day pools for transfer.

The text of the Public Law 100-581, Title IV is presented.

*Sec. 401.(a) All federal lands within the area described on maps numbered HR2677 sheets 1 through 12, dated September 21, 1988, and on file in the offices of the Secretary of the Interior, the Secretary of the Army, and the Columbia River Gorge Commission shall, on and after the date of enactment of this Act, be administered to provide access to usual and accustomed fishing areas and ancillary fishing facilities for members of the Nez Perce Tribe, the Confederated Tribes of Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon and the Confederated Tribes and Bands of the Yakima Indian Nation.*

*Sec. 401.(b) Notwithstanding any other provision of law, the Secretary of the Army shall (1) identify and acquire additional lands adjacent to the Bonneville Pool from willing sellers until such time that at least six sites have been acquired adjacent to the Bonneville Pool for the purpose of providing access and ancillary fishing facilities for the members of the Indian tribes referred to in subsection (a); and (2) improve the lands referred to in subsections (a) and paragraph (1) of subsection (b) and maintain such lands until such time as the lands are transferred to the Department of Interior for the purpose of maintaining the sites. Such improvements shall include, but not be limited to, camping and park facilities to the same standards as those provided in the National Park system; all weather access roads and boat ramps; docks; sanitation; fish cleaning, curing, and ancillary fishing facilities; electrical and sewage facilities; and landscaping; and (3) make improvements at existing sites, including but not limited to dredging at the site at Wind River, Washington, and constructing a boat ramp on or near the site at Cascade Locks, Oregon.*

*Sec. 401.(c) The Secretary of the Army shall treat the costs of implementation of paragraphs (2) and (3) of subsection (b) as project costs of the Army Corps of Engineers Columbia River projects, and such costs shall be allocated in accordance with existing principals of allocating Columbia River project costs. Funds heretofore and hereafter appropriated to the Secretary of the Army for maintenance and development of Columbia River projects may be used to defray the costs of accomplishing the purposes of this Act.*

*Sec. 401.(d) There is hereby authorized to be appropriated a sum not to exceed \$2,000,000 to implement the purpose of subsection (b)(1).*

*Sec. 401.(e) The Secretary of the Interior shall be vested with the right of first refusal, after consultation with the Indian entities in subsection (a), to accept any lands adjacent to the Columbia River within the Bonneville, Dalles, and John Day Pools now owned or subsequently acquired by any federal agency and declared to be excess lands or otherwise offered for sale or lease by such federal agency, and*



*upon such acceptance, such federal agency shall transfer such lands to the Secretary for the purpose of Indian treaty fishing: Provided however, that total acreage of sites provided under this section adjacent to Bonneville Pool of the Columbia River not exceed three hundred and sixty acres.*

*Sec. 401.(f) Nothing in this Act shall be construed as repealing, superseding, or modifying any right, privilege, or immunity granted, reserved, or established pursuant to treaty, statute, or Executive order pertaining to any Indian tribe, band, or community.*

## **1.8 Project Purpose and Scope**

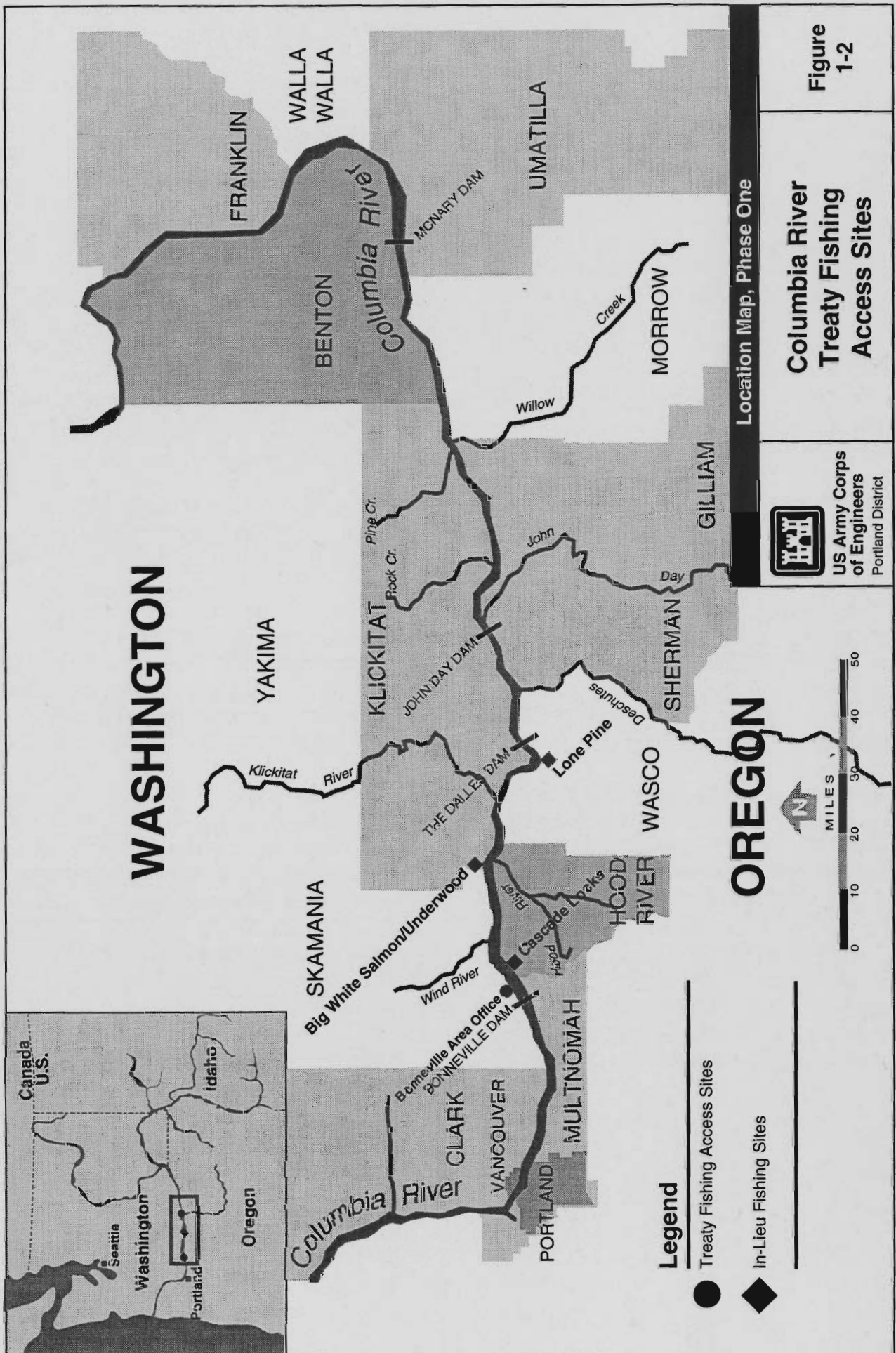
A two-year PED program, developed to respond to P.L. 100-581's diverse requirements, was initiated in 1990. In order to provide early action to implement P.L. 100-581, the planning activities were divided into two phases.

The Phase One Report addressed expedited improvement or development of Cascade Locks, Underwood, and Lone Pine which are in-lieu fishing sites, and development of Bonneville Area Office, which is a Treaty fishing access site (see figure 1-2).

The conceptual designs and preliminary baseline cost estimate provide the basis for proceeding with the four early action sites and funding early construction. The Phase One Report also includes a ranking of the four sites by development costs. A summary of the cost components of the preliminary baseline estimate for each site is included in Appendix J of the Phase One Report. Costs for improvements and developments to the Phase One sites are included in the total project costs found at the end of this report.

This Phase Two Evaluation Report addresses the balance of the sites and provides a total project cost estimate. It includes a baseline cost estimate for the remaining sites, a plan of development, environmental and cultural resource assessments, and other appropriate supporting information. Cost estimates for the purchase and development of acquisition sites to be acquired on the Bonneville pool are included in the total project cost estimate.

The scope of the planning process focused on sites with potential for expedited development (Phase One) and assigned those sites requiring resolutions to Phase Two. Planning activities for both phases are concurrent, and planning report transmittals will be sequential. Phased planning and sequential reporting will facilitate early design, construction and administrative transfer of suitable sites.



## 1.9 Site Selection Process

Title IV of Public Law 100-581, Section 401.(a), specifically referenced 23 Treaty fishing access sites, marked on maps, along the Columbia River in Oregon and Washington to be developed. Two of the sites named in the legislation, North Dalles and Maryhill, are not managed by the Federal Government and, therefore, are not subject to P.L. 100-581. These two sites were dropped from consideration because the legislation excluded sites which were not on federal land; this reduces the number of Treaty fishing access sites to 21. See table 1-3 for site selections.

A portion of the Boardman site fell within Corps lands leased by the city of Boardman. Portions of the city water supply system are on the site. See plate 61. Site development would impact their water supply, which is pumped from an existing Ranney Well. After discussions with the Tribes, BIA, and the City of Boardman, development at this site was deleted and replaced with an expanded development at Faler Road site. Both sites are in Boardman, Oregon. This reduced the number of Treaty fishing access sites to 20.

The Cliffs site is along a steep rock bank adjacent to swift currents and deep water. A safe boat ramp could not be built. In addition, development at the Cliffs site would directly impact a primitive public access area. The Tribes have negotiated with the State of Washington to reserve, which a portion of Maryhill State Park with the State of Washington, while the Maryhill State Park site is separate from and should not be confused with the Maryhill site identified in the legislation. Maryhill State Park is upstream of the Sam Hill Memorial Bridge, Washington. The Maryhill site identified in the legislation is downstream of the bridge. References to the Maryhill site in this report refers to Maryhill State Park site and not the Maryhill site identified in the legislation. The Cliffs site was eliminated and replaced with development at the new Maryhill site. This maintained the number of Treaty fishing access sites at 20.

The Treaty fishing access sites are Bonneville Area Office, Celilo, Preachers Eddy, Roosevelt, Faler Road, Avery, Rufus, Maryhill, North Shore, LePage, Goodnoe, Pasture Point, Rock Creek, Sundale, Moonay, Pine Creek, Threemile Canyon, Alderdale, Alder Creek and Crow Butte. Moonay and Alder Creek sites will not receive any site development, though the lands will be transferred to BIA.

Title IV of Public Law 100-581, Section 401.(b), specified the acquisition and development of acquisition sites, from willing sellers, on the Bonneville pool. Numerous properties were investigated and were reviewed with the four Tribes. Six sites have been selected for acquisition. Planning for these sites was based on the acquisition and development of six sites including Lyle, Stanley Rock, Wind River, White Salmon, Dallesport and Bingen Boat Basin.

The law specified the rehabilitation of five in-lieu fishing sites, constructed in the 1950's, which have been transferred to the Department of Interior. The five sites are Cascade Locks, Wind River, Cooks Inlet, Underwood and Lone Pine.

In summary, this report investigates the acquisition, development, rehabilitation and/or transfer of fishing access sites on the Columbia River. There are 20 Treaty fishing access sites, six acquisition sites and five in-lieu fishing sites. This totals 31 fishing access sites along 146 river miles of the Columbia River on the Oregon and Washington shores required by P.L. 100-581. See figure 1-3 for the proposed site locations.

Although these are individual sites, they are recognized as a system of sites rather than separate sites. Consequentially, it is difficult to rate the sites in level of importance. Tribal fishing practices concentrate on adult anadromous fish which migrate up the Columbia River each year, making individual fishing sites of greater or lesser value at different times.

A system of sites from Bonneville Dam to McNary Dam must be provided to allow the Tribes the ability to access the Columbia River wherever the fish runs may be found. Adjustments to the legislated list of sites have been made, after consultation and concurrence with the four Tribes. These adjustments were developed to conform with P.L. 100-581, reduce public impact and project costs, and separate incompatible uses.

### **1.10 Planning Process**

The planning process involved systematically collecting, reviewing, and presenting information to implement the public law; and making specific recommendations and presenting preliminary cost estimates, which would serve as the basis to seek appropriations from Congress and document the process. This process included public and agency coordination, consultation with the four Tribes, resource analysis, preliminary engineering analysis, establishment of design criteria, development and evaluation of alternatives, and formulation of a coordinated plan for implementation. The results of these efforts are contained in this Phase Two report, including an Environmental Assessment located in the green pages following the main report and a Coordination Act Report (CAR) in Appendix E.

The final plan is based on an analysis and assimilation of all data, information, and issues identified during completion of the *Working Document* (Master Planning activity), Phase One and Phase Two planning, and National Environmental Policy Act documentation. The plan was developed by a Portland District interdisciplinary team which includes planning, engineering, operations, and resource staff with information from BIA, the four Tribes, and interested parties and public.

Facilities were developed on a site by site basis, focusing on each site as a unit. Negotiations with the four Tribes, BIA and other parties were required to identify appropriate boundary adjustments at the legislated site and/or alternate federal lands, many of which were generated from the suitability analysis in the *Working Document*. Part of the planning process involved reassessing and clarifying the physical conditions at selected sites to supplement data in the *Working Document* suitability analysis. The four Tribes and BIA agreed to final sites recommended in this report on proposed boundary adjustments and/or alternate federal lands.



Table 1-1 -- Site Selection

Site	Location County/State	Site Type	Legal Basis	Recommended Action	Planning Report
<b>Legislative</b>					
Bonneville Area Office	Skamania, Washington	TFAS	401(a)	No Change	Phase One
Celilo	Wasco, Oregon	TFAS	401(a)	Boundary	Phase Two
Preachers Eddy	Sherman, Oregon	TFAS	401(a)	Boundary	Phase Two
Roosevelt	Klickitat, Washington	TFAS	401(a)	Alternative	Phase Two
Faler Road	Morrow, Oregon	TFAS	401(a)	Boundary	Phase Two
<b>Boardman</b>	<b>Morrow, Oregon</b>	<b>TFAS</b>	<b>401(a)</b>	<b>Delete</b>	<b>Phase Two</b>
Rufus	Sherman, Oregon	TFAS	401(a)	No Change	Phase Two
Avery	Klickitat, Washington	TFAS	401(a)	No Change	Phase Two
Maryhill	Klickitat, Washington	TFAS	401(a)	Replaced	Phase Two
<b>Cliffs</b>	<b>Klickitat, Washington</b>	<b>TFAS</b>	<b>401(a)</b>	<b>Delete</b>	<b>Phase Two</b>
LePage	Sherman, Oregon	TFAS	401(a)	Boundary	Phase Two
Sundale	Sherman, Oregon	TFAS	401(a)	Boundary	Phase Two
North Shore	Klickitat, Washington	TFAS	401(a)	Alternative	Phase Two
Goodnoe	Klickitat, Washington	TFAS	401(a)	Boundary	Phase Two
Pasture Point	Klickitat, Washington	TFAS	401(a)	Boundary	Phase Two
Rock Creek	Klickitat, Washington	TFAS	401(a)	Boundary	Phase Two
Moonay	Klickitat, Washington	TFAS	401(a)	Boundary	Phase Two
Threemile Canyon	Morrow, Oregon	TFAS	401(a)	Boundary	Phase Two
Alder Creek	Klickitat, Washington	TFAS	401(a)	Boundary	Phase Two
Crow Butte	Benton, Washington	TFAS	401(a)	Alternative	Phase Two
Pine Creek	Klickitat, Washington	TFAS	401(a)	Boundary	Phase Two
Alderdale	Klickitat, Washington	TFAS	401(a)	No change	Phase Two
<b>In-lieu</b>					
Cascade Locks	Hood River, Oregon	In-lieu	401(b)(1)	No change	Phase One
Underwood	Skamania, Washington	In-lieu	401(b)(1)	No change	Phase One
Lone Pine	Wasco, Oregon	In-lieu	401(b)(1)	No change	Phase One
Wind River	Skamania, Washington	In-lieu	401(b)(1)	No change	Phase Two
Cooks Inlet	Skamania, Washington	In-lieu	401(b)(1)	No change	Phase Two
<b>Acquired</b>					
Lyle	Klickitat, Washington	Acquired	401(b)(3)	NA	LA/Phase Two
Wind River	Skamania, Washington	Acquired	401(b)(3)	NA	LA/Phase Two
Stanley Rock	Hood River, Oregon	Acquired	401(b)(3)	NA	LA/Phase Two
White Salmon	Klickitat, Washington	Acquired	401(b)(3)	NA	LA/Phase Two
Dallesport	Klickitat, Washington	Acquired	401(b)(3)	NA	LA/Phase Two
Bingen	Klickitat, Washington	Acquired	401(b)(3)	NA	LA/Phase Two

TFAS - treaty fishing access site

Acquired - treaty fishing access site to be purchased on the Bonneville Pool

401(a) - section in PL-100-581

401(b)(1) - section in PL-100-581

401(b)(3) - section in PL-100-581

No Change - no change in legislative site location or boundary

Boundary - change in boundary required

Alternative - site relocation in proximity to legislative site

**Delete - removed from consideration as TFAS**

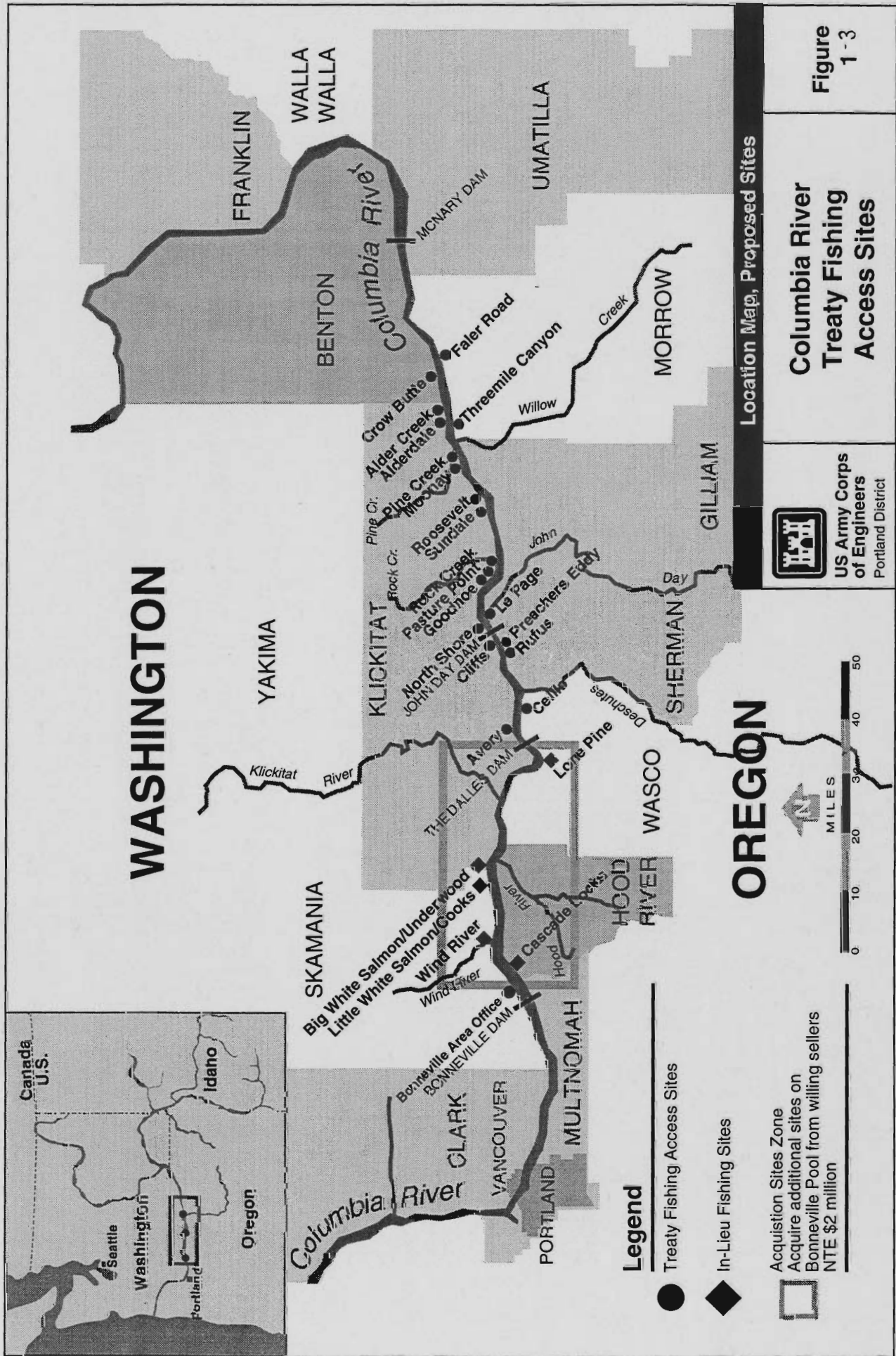
Replaced - exchanged Maryhill for Cliffs

Phase One - Final Phase One Evaluation Report/EA (October 1992)

Phase Two - Draft Phase Two Evaluation Report/EA (January 1995)

LA - (Land Acquisition) Final Land Acquisition Study/EA (July 1994)





Conceptual designs and preliminary cost estimates were prepared for each site. The objective of the conceptual designs was to illustrate and articulate a proposal to meet the intent of P.L. 100-581 while minimizing costs and environmental impacts. Conceptual designs and itemized development cost estimates were prepared for each site and are in Appendices B, Identified Plan, and J, Cost Estimate, respectively. The Phase One Report has details for the four Phase One sites. The sites, in order of least cost to greatest cost, are presented in Appendix K, Economic Report. Draft management and development objectives guided design and management. Objectives addressed each of the following topics:

- Level of development necessary to meet needs for Treaty fishing at each site.
- Disposition of public use at each site.
- At sites which presently support high levels of public use, identify if the site and/or adjacent federal land can support both Treaty fishing facilities and public access and recreational facilities.
- Cost-effective evaluation.
- Operational considerations at each site.
- Environmental protection, preservation, and mitigation measures.
- Cultural resource preservation.

For this project, the development and/or improvements recommended at each site are within the scope of those authorized in P.L. 100-581 and generally are the minimum requirements listed in EM 1110-1-400, EM 1110-2-410 and other applicable federal, state, and local regulations, except when specific facilities were requested by the four Tribes and BIA. These requests on the Phase One sites are summarized on a site by site basis in the Phase One Report, Appendix D, Corps of Engineers' Reply to four Tribes. Treaty Tribe requests for Phase Two are in Appendix D of this report. They are also discussed in section 2.1, Site Descriptions, in the subsection for each site. The design criteria used in the planning process are discussed in Appendix B, Identified Plan.



## 2. PLAN FORMULATION

### 2.1 Existing Conditions

#### 2.1.1 General.

Public use of the Columbia River has increased dramatically over the last several years with the advent of wind surfing and expanded public interest in fishing and recreational boating. Competing interests at the public access sites by Tribal fishers and the recreational public have led to confrontations and the threat of violence. Conflicts have developed between Tribal fishers and the recreational public over use of the parks' open space and facilities. Conflicts at the public facilities have become intense, causing delays when launching boats and frustration for both parties. Public parks do not have the facilities to accommodate both the public and the Tribal fishers.

#### 2.1.2 Site Descriptions.

The Treaty fishing access sites designated by P.L. 100-581 on federal lands have no facilities for drying and repairing nets, off-loading large quantities of fish, cleaning fish, or for commercial fish buyers. These activities require space at the public parks and commonly occupy areas previously used by the public. Existing conditions at each of the sites are described in the following paragraphs.

Field observations and interviews were conducted by Corps' resource personnel during peak fishing use periods for 1988 and 1989. The observations for Treaty fishing use were summarized and included use at the designated site as well as use on adjacent lands. This information provides only one index of Treaty fishing use. Because of the unpredictable nature of anadromous fish migrations, it is difficult to determine peak use periods and analyze treaty fishing use for each site. The four Tribes indicated that the field observations underestimated the Treaty fishing site use on several sites. Therefore, in some cases, facilities development is based on use provided by the four Tribes.

a. Phase One Sites. For details on the Bonneville Area Office Treaty Fishing Access Site, Cascade Locks In-Lieu Fishing Site, Underwood In-Lieu Fishing Site, and Lone Pine In-Lieu Fishing Site, see the Phase One Report.

b. Wind River In-Lieu Fishing Site. This site is in Washington State along Wind River, a tributary of the Columbia River, near RM 155.0 in Skamania County. The site covers approximately 25.0 acres. This site is shown on plate G in Appendix B.

The site was designated as a Treaty fishing access site more than 30 years ago. The paved portion of the access road to the site is a steep one-lane road with turnouts and is in good condition. It was developed and transferred to the Department of Interior. Facilities at the site are no longer functional, but Tribal fishers use the site for camping. Tribal fishers launch their

boats at the county park less than a mile downstream. A large shoal adjacent to the boat ramp prevents launching of small boats from this site. The restroom has burned to the ground. Vandals have rendered the fish cleaning station and drying shed inoperable. All the facilities including the boat ramp and dock are in need of rehabilitation.

The quality of the water from the well on the existing site is questionable. Sampling and testing of the water is recommended before designating the well as a potable water source for the site. The water and power distribution systems may need repair or replacement.

Field observations included four camps with 3 to 4 individuals per camp. These camps originate from the Warm Springs and Yakama Tribes. Commercial fish buyers were not present on the site to purchase fish, presumably because of the steep access road and lack of maneuvering space for vehicles.

c. Cooks Inlet In-Lieu Treaty Fishing Site. This site is on the Washington shore, in Skamania County near RM 162.0 on the Bonneville pool, Lake Bonneville. Shown on plate H in Appendix B, the proposed site covers approximately 2.9 acres. It was designated as a Treaty fishing site more than 10 years ago and has been developed and transferred to the Department of Interior, BIA. Several Tribal fishers have established permanent residence in trailers at the site in recent years. A recent Washington court decision established the rights of these individuals to maintain permanent residence.

Facilities such as the restroom, water and chlorination system, power, and lights are in need of rehabilitation. The utility systems were not designed for permanent residency at the site. Consequently, the demand has generally exceeded the safe operational capacity of these systems. The fish cleaning station is nonfunctional and needs to be replaced. The boat ramp, docks and marina are in good condition but may require minor repairs. A large holding tank stores the sewage generated on the site and is pumped regularly for off-site disposal by a contractor.

Field observations included four camps with 3 to 4 individuals per camp. These camps house year-round residents. Commercial fish buyers were not present on the site to purchase fish.

d. Avery Treaty Fishing Access Site. This site is on the Washington shore in Klickitat County near RM 197.4 on The Dalles pool. The Columbia River bounds the site on the south and the Burlington Northern Railroad bounds the site to the north. The site is shown on plate I in Appendix B.

This site is a Corps' administered public park with a graveled parking lot, a vault toilet, picnic tables, a small groin and a damaged boat ramp. Adjacent lands were investigated as potential fishing access sites but were found to be inadequate for development. The railroad and the accompanying right-of-way severely restrict development of Treaty fishing access on adjacent lands.



The site is on a small beach. An irregular shoreline varies in composition from steep erosion scarps to beaches with a thin layer of gravel and cobbles. The beach is composed primarily of silty sand with gravel lenses. Vegetation consists of shoreline riparian that includes willow, cottonwood, locust and scattered pine.

Field observations identified four camps with 3 to 4 individuals per camp and four vehicles with boat and trailer. An average of two on-site vehicles support treaty fishing activities. These camps generally stay for the entire fishing season. Fishers primarily use tents and trailers for shelter. Commercial fish buyers use the site to purchase fish but do not stay for long periods of time.

e. Celilo Treaty Fishing Access Site. This site is on the Oregon shore in Wasco County, near river mile (RM) 201.5 on The Dalles pool, Lake Celilo. The site is shown on plate J in Appendix B. Currently the site is undeveloped but has a primitive sweat lodge at the upstream end of the site and is used by occupants of Celilo Village. An archeological site at the Celilo site contains prehistoric and historic elements. Test excavations to evaluate the archeological site will be performed under a separate action prior to developing the site.

A highly developed Corps' administered public park adjacent to the Celilo site park is used extensively during the summer. Generally the park is completely full throughout the summer. It includes paved parking areas, two restroom facilities, a double boat ramp, picnic facilities, and landscaping with an irrigation system. Tribal fishers are currently using the boat ramp, restrooms and open spaces at the park for Treaty fishing support. Frequent congestion at the boat ramp has created disputes between Tribal fishers and the recreationists.

Field observations identified four camps with four to six people per camp and four vehicles with boat and trailer. Additional fishers from the nearby Celilo Village launch boats and fish from this site, but a tally of the actual use from the village was unattainable.

The four Tribes, comments in the Phase One Report, Appendix C (pages C-14 to C-32 under Land Use), indicate there is extensive Tribal use. They request site development comparable to the facilities provided at the adjacent public park, also called Celilo.

f. Maryhill Treaty Fishing Access Site. This site is currently on undeveloped land within the existing Maryhill State Park (Washington) near RM 208.2 on The Dalles pool and is shown on plate K in Appendix B. Upstream (east) of the Sam Hill Memorial Bridge, the site is on federal land leased to the Washington State Parks Commission. Negotiations between the four Tribes, mainly the Yakama, and the Commission resulted in the Commission's approval to exclude the lands, required for site development, from the lease. This would allow the Corps to develop a Treaty fishing access site adjacent to the Maryhill State Park. The Corps is proposing development and transfer of the Maryhill site as an alternative to development at the Cliffs legislated site. This would include removing the Cliffs site as one of the required sites for transfer as prescribed in P.L. 100-581.

Several Tribal fishers use the Maryhill State Park during fishing season. There has been no use conflict between the Tribal fishers and the recreational public in the park. Public use of the park has increased in recent years, and the State of Washington is in the process of improving the park.

Public Law 100-581 identified a Maryhill site just west (downstream) of Maryhill State Park and the Sam Hill Memorial Bridge (U.S. Highway 99), but this site was on private land and, therefore, beyond the scope and intent of P.L. 100-581. This legislated site should not be confused with the proposed site, even though they have the same name. The legislated site was downstream and adjacent to the Sam Hill Memorial Bridge, while the proposed site is upstream and adjacent to the Sam Hill Memorial Bridge.

The proposed Maryhill site is on land previously used for construction of the Sam Hill Memorial Bridge. The site was a staging area for a concrete batch plant and aggregate borrow source. The borrow sources have small wetlands in the lower portion of excavated pits. Concrete from the batch plant was loaded on barges for transport to the construction sites. Consequently, the ground surface is irregular and composed of cobbles and gravel, and most of it has been disturbed. Some Native American artifacts on the site have been identified by cultural resource professionals.

Field observations identified four camps with 3 to 4 individuals per camp and four vehicles with boat and trailer. There were an average of two vehicles on-site to support treating fishing activities. These camps generally stay for the entire fishing season and fishers primarily use tents and trailers for shelter. Commercial fish buyers use the site to purchase fish, but do not stay for long periods of time.

g. Cliffs Treaty Fishing Access Site. This site is on the Washington shore in Klickitat County near RM 214.5 on the Dalles pool. The site is too close to the navigation channel and the navigation lock at John Day dam. Barge traffic would impact river access and damage any facilities developed. Additionally, the preliminary engineering data and analysis led to reservations in constructing a boat ramp. Nearshore shoaling occurs regularly at the site. A groin could limit or prevent the shoaling, but it is unlikely there is sufficient room to construct one. Furthermore, development would directly impact a currently used primitive public access area. These factors resulted in eliminating this legislated site and replacing it with development at Maryhill State Park. The four Tribes and BIA endorse the alternative site development.

h. Rufus Treaty Fishing Access Site. This site is on the Oregon shore in Sherman County near RM 212.4 on The Dalles pool. The Columbia River bounds the site on the north with a gravel access road, I-84, and Union Pacific Railroad to the south. The site is shown on plate L in Appendix B.

The FWS has identified valuable riparian habitat on a major portion of the legislated Rufus site along the shoreline and, consequently, has requested minimum development at the site,

preferably in the upland portion. Preliminary data and analysis indicates physical characteristics of the site limit the development. A boat ramp cannot be developed without disturbing the riparian habitat, and the upland portion of the site is physically too small for a boat ramp and the associated land-based facilities.

Historically, Tribal fishers have used the site throughout the season. River access is difficult, so boats are generally launched from other locations. The Oregon Department of Fish and Wildlife leases the western and northern portions of the site.

Field observations identified one camp with 10 to 12 individuals and 3 vehicles with boat and trailer. An average of four on-site vehicles support Treaty fishing activities. These camps generally stay for the entire fishing season. Fishers primarily use tents and trailers for shelter. No commercial fish buyers were observed on the site.

i. Preachers Eddy Treaty Fishing Access Site. This site is on the Oregon shore in Sherman County near RM 213.5 on The Dalles pool. The site is shown on plate M in Appendix B. Dispersed public use is found throughout the area and is concentrated at adjacent Giles French Park. Development of the legislated site (as shown in the *Working Document*) would impact the Giles French Park in that the site includes the public boat ramp, parking area and vault toilets for the park.

Field observations identified 3 to 4 camps using tents or trailers, with five to six individuals per camp and generally 3 to 4 vehicles with boat and trailer, but occasionally as many as six. Fish buyers were observed periodically.

Comments by the four Tribes in the Phase One Report, Appendix C (pages C-16 and C-34 under Site Boundary), indicate the area is heavily used by Tribal fishers. The adjacent Giles French Park is extensively used for Treaty fishing activities and the recreational public.

The river access facilities at Giles French Park are in poor condition. The upstream ramp is no longer functional. Boat docks need to be replaced, and extension of the groin further into the river would provide better protection for the docks and ramps. Generally, the facilities at the public park are inadequate to provide for both the four Tribes and the recreational public.

j. North Shore Treaty Fishing Access Site. This site is on an embayment of the Columbia River near RM 215.9 on the John Day pool on the Washington shore in Klickitat County. The site is bounded by Burlington Northern Railroad to the south and the access road for Railroad Island Park to the north. It also is bounded by an embayment to the east and John Day dam to the west. The site is shown on plate N in Appendix B.

The legislated site has no vehicle access, and it is uncertain if access could be provided in the future. Providing site access would result in extensive environmental impacts and high construction costs. During construction of the John Day Dam, borrow material was removed

from this site. The topography is steep and irregular, and the surface soils are sandy gravels. The river water surface is approximately 25 feet below the site. Construction of a boat ramp, therefore, is problematic and potentially very costly.

In view of the limitations of the legislated site, an alternative site was identified adjacent to Railroad Island Park, administered by the Corps, for developing a Treaty fishing access site. The site is on the same embayment. A railroad embankment separates the embayment from the Columbia River; therefore, a groin would not be required for protection of the boat ramp. A concrete structure (box culvert) under the railroad provides boat access from the embayment to the river. Groundwater in the area is believed to be unusable and in short supply. Access to the site would be on the existing park access road.

Field observations identified two groups with 2 to 3 individuals per group and two vehicles with boat and trailer. The groups did not camp. Use was not observed at the designated site, but was observed at the adjacent park. Development of the site to accommodate Treaty fishing would allow use and reduce pressure at the adjacent park and LePage Treaty fishing access site. Commercial fish buyers were not observed at the site.

k. LePage Treaty Fishing Access Site. This site is within the LePage Park, a Corps-administered public park, and adjacent to federal land. The site is on the Oregon shore near RM 217.8 at the confluence of the John Day and Columbia Rivers, in Sherman County on the John Day pool. It is bounded by I-84 to the north, by LePage Park to the south, by John Day River to the east, and by an access road to the west as shown on plate O in Appendix B.

The legislated site has limited development potential. It is on the north side of the public park between the boat ramp parking lot and the embankment for I-84. Much of the site is within the freeway right-of-way, which restricts the development potential of the site. Alternative sites on federal land to the west were evaluated during development of the *Working Document*, but the topography does not indicate acceptable river access potential. An upland area is identified and available for support facilities if the legislated site is developed.

LePage Park is extensively used by the public and Tribal fishers for launching boats and camping during peak fishing periods (generally the summer). Congestion at the park during the summer is common with both Tribal fishers and the recreational public using the single boat ramp.

The soils in the park area are mostly shallow sand over basalt. The basalt outcrops lie along the shoreline and numerous other upland areas near the park. The embankment for the I-84 is approximately 30 feet high with lateral slopes of 1 vertical (V) on 3 horizontal (H) and is composed mostly of rock fill near the park area. There is only 30 feet of land for development between the freeway right-of-way and the edge of the parking lot. Two benches above the park area are covered by shallow colluvial silty sand. Quarry wastes were left in stockpiles on the benches, which were left from past quarry wastes were left in stockpiles on the benches.



Field observations identified two camps with 10 individuals in one camp and four individuals in the other. A third transient group of four individuals use the site primarily for launching boats only. Six vehicles with boats or trailers were found at the site with an average of six vehicles on-site to support Treaty fishing activities. Commercial fish buyers use the site to purchase fish.

l. Goodnoe Treaty Fishing Access Site. This site is on the Washington shore in Klickitat County near RM 225.4 on the John Day pool. It is bounded by the Columbia River to the south and Burlington Northern Railroad to the north. The site is shown on plate P-1 in Appendix B.

The Burlington Northern Railroad mainline passes through the center of the legislated site; hence a majority of the site is within the railroad right-of-way. Therefore, development at the site is severely limited. The site was moved upstream and outside of the right-of-way where adequate land is available for development. Neither Tribal fishers nor the public use the site extensively.

The shoreline at both sites consists of a narrow beach composed of silty sandy gravel with surface cobbles and an occasional boulder. The beach is subject to periodic flooding. Upslope topography consists of rolling terrain that abruptly transforms to steep upland hills. Soils on the upper slope consist of silty sandy gravel. The soils in the area are permeable but shallow. Ground cover in the area is sparse and consists of sage brush, grasses and brush.

Vehicular access to both sites is on a poorly maintained gravel road from Washington State Route 14 (SR 14), which also leads to Pasture Point and Rock Creek. A railroad crossing that provides access to the road for railroad maintenance is in poor condition. River access for boats at this site is limited by the topography. The slope of the narrow beach is nearly flat, and the nearshore water depths are shallow for a considerable distance perpendicular to the shore.

No Treaty fishing was observed by the Corps, but there was dispersed camping in support of Treaty fishing. No evidence was found that commercial fish buyers use the site to purchase fish.

m. Pasture Point Treaty Fishing Access Site. This site is on the Washington shore in Klickitat County near RM 226.5 on the John Day pool. The site is shown on plate P-2 in Appendix B.

Pasture Point is bounded by the Burlington Northern Railroad right-of-way to the north and the Columbia River to the south. The site has the potential to accommodate a boat ramp and higher levels of development than adjacent sites, Goodnoe and Rock Creek. There is a natural inlet where a boat ramp could be developed with protection from wind and waves.

The shoreline in this area consists of a narrow beach composed of silty sandy gravel with



surface cobbles and an occasional boulder. The beach is subject to periodic flooding when the reservoir is at its maximum elevation. Upslope topography consists of rolling terrain that abruptly transforms to steep upland hills. Soils on the upper slope consist of silty sandy gravel. The soils in the area are permeable but shallow. Ground cover in the area is sparse and consists of sagebrush, grasses and brush.

Vehicles access the site via the same gravel road from Washington SR 14 that leads to Goodnoe and Rock Creek. The railroad crossing that provides access to the road is in poor condition. The slope of the narrow beach is nearly flat and the nearshore water depths are shallow for a considerable distance perpendicular to the shoreline.

Field observations identified no Treaty fishing on the site, but there was dispersed primitive camping in support of Treaty fishing. There was no evidence of commercial fish buyers using the site to purchase fish.

n. Rock Creek Treaty Fishing Access Site. This site is on the Washington shore in Klickitat County near RM 227.5 on the John Day pool. The site is shown on plate P-3 in Appendix B.

This site is very narrow and is bounded by the Burlington Northern Railroad mainline on the north and the Columbia River on the south. The railroad right-of-way reduces the area available for development. Additional federal land is available to the west (downstream) to include in the site for developing facilities.

The shoreline in this area is generally linear with a narrow beach, which has a thin layer of silty sand covered with subangular cobbles. The beach is subject to flooding during periods when the reservoir is at its maximum elevation. Little or no soil is found on the uplands. Numerous basalt outcrops, some with a relief as high as 20 feet, are common in the upland area. The ground cover is sparse and consists of grass and sagebrush.

This site is used only on a seasonal basis by the Tribal fishers and is not used by the public. Only primitive camping occurs at the site. Vehicular access to the site is via the same poorly maintained gravel road from Washington SR 14 that leads to Goodnoe and Pasture Point. The railroad crossing that provides access to the road is in poor but usable condition. Water depths nearshore are shallow, and the slope adjacent to the shoreline is between 3 and 6 percent slope.

Field observations identified one group with four individuals. There is evidence of dispersed camping throughout the site, but no evidence that commercial fish buyers use the site to purchase fish.

o. Sundale Treaty Fishing Access Site. This site is on the Washington shore in Klickitat County near RM 236.2 on the John Day pool. The site is shown on plate Q in Appendix B.

The site includes a small bay separated from the river by a large railroad fill. A concrete structure under (box culvert) the railroad allows access to the river.

The legislated site includes Sundale Park, a Corps-administrated public park, and federally managed land adjacent to the shoreline and adjoining the bay. Some land under private ownership was also included within the legislative boundary but subsequently has been removed from consideration in the final plan. Sundale Park is currently used by both the public and Tribal fishers.

Facilities at Sundale Park include a picnic area, swim beach, boat ramp, parking lot and vault toilet. The parking lot has asphalt surfacing and can accommodate five vehicles with boat trailers. The public generally uses the park as a day-use facility.

Soils in the upland area are silty sand, and some of the soil has been imported from other areas. Groundwater in the area is just below the surface. The nearshore ground surface, composed of a thin layer of coarse sand with cobbles and an occasional boulder, slopes gradually toward the river.

Field observations identified six camps using tents or campers, with four individuals per camp. Six vehicles with boat and trailer were observed during periods of Treaty fishing. Commercial fish buyers were observed at the site during high runs and harvests.

p. Roosevelt Treaty Fishing Access Site. This site is on the Washington shore in Klickitat County near RM 241.0 on the John Day pool, Lake Umatilla. The legislated site is within the closed area of the existing park, which has paved access from Washington Route 14 through the town of Roosevelt. Shown on plate R in Appendix B, the site is on a high rock outcrop that drops vertically into the river. Consequently, the site is not suitable for river access or camping other than primitive facilities. The southern tip of the parking area in the existing park is in the legislated site, creating an undesirable overlap of public and Tribal fishing use. The site is therefore considered unsatisfactory for Treaty fishing access, and an alternative site is proposed on undeveloped land adjacent to the existing Roosevelt Park. The alternative site would use the existing groins from an old ferry slip and will require a legislative amendment.

Field observations identified six camps using tents or trailers, with two to four individuals per camp and six vehicles with boat and trailer. Fish buyers frequently came on-site to purchase fish.

The four Tribes have indicated in the Phase One Report, Appendix C (pages C-18 and C-36 under Land Use), that this site is heavily used during the peak fishing seasons by Tribal fishers.

q. Moonay Treaty Fishing Access Site. This site is on the Washington shore in Klickitat County near RM 247.5 on the John Day pool. This site is shown on plate S in Appendix B.

The site is bounded on the north by the Burlington Northern Railroad mainline and on the south by the Columbia River. Much of the site is within the railroad right-of-way; therefore, very little land is available for development. There is additional federal land both upstream and downstream of the site, but the railroad right-of-way severely restricts development on this land.

The beach along the site is 20 feet or less in width, composed of a thin layer of coarse sand with cobbles and an occasional boulder, and gradually slopes toward the river. There is an erosional, near vertical surface approximately 3 feet high that separates the beach and a gentle sloping terrace composed of silty sandy gravels. Steep hills upland of the terrace and beyond the site boundary are dissected by drainage gulches. Runoff from these gulches discharges directly on the site and may cause local flooding and soil deposition during periods of intense precipitation. The downstream shoreline below the access road is riprapped. The surface of the site appears to be disturbed, with shotrock piles indicating the site was a rock processing location during construction of the railroad. Sparse vegetative ground cover of the upland area includes sagebrush and grass. A strip of shrub locust separates the beach and the terrace.

Vehicle access to this site is on a poorly maintained gravel road off SR 14. The railroad crossing on the gravel road is in poor condition. This site has limited potential for providing river access. The beach is narrow and gently sloping. Any boat facility would be exposed to severe wind and wave action without an extensive protection structure.

No Treaty fishing on the site was observed, but there was evidence in support of Treaty fishing, such as limited dispersed camping. No evidence was found that commercial fish buyers purchase fish at use the site.

r. Pine Creek Treaty Fishing Access Site. This site is on the Washington shore in Klickitat County near RM 250.2 on the John Day pool. The Pine Creek Site is shown on plate T in Appendix B.

This site is narrow and is bounded on the north by the Burlington Northern Railroad mainline and on the south by the Columbia River. Consequently, site development is very restricted unless adjacent federal lands are included. A new railroad crossing and an access road are required for this site because the former crossing has been removed. The abandoned highway which serves as the current access to the site is within the railroad right-of-way.

The majority of the site is founded on basalt that outcrops in near-vertical slopes along the shoreline. Several small inlets with beaches are composed of coarse sand intermixed with cobbles and boulders. Upland areas have an irregular surface with near-vertical basalt rock masses extending several tens of feet above the surrounding terrain. On gentle slopes, shallow soils can be found composed mainly of silty sand. Several slope wash deposits are exposed along the abandoned highway road cuts. Much of the site has been disturbed by construction related to the abandoned highway. Road cuts consisting of near-vertical rock slopes and rock fill embankments are common topographic features, which complicate site development.

Vegetative cover is sparse on the site and consists of grasses and sagebrush. A line of shrubs identifies the transition zone between the beach and the upland terrain.

No Treaty fishing on the site was observed, and there was very little evidence, if any, of site by Tribal fishers. There was evidence of limited dispersed camping at the site. No evidence was found that commercial fish buyers use the site.

s. Threemile Canyon Treaty Fishing Access Site. This site is on the Oregon shore in Morrow County near RM 255.0 on the John Day pool. This site is shown on plate U in Appendix B.

The legislated site is a narrow strip of land that includes only the shoreline. There is very little potential to develop camping, parking and similar facilities on the legislated site unless additional federal land is included. Federal land above the shoreline (uplands) is available for development and transfer. The boat ramp for the Quesnel public park has been included in the legislated site, but is in disrepair. If the ramp were incorporated into the Treaty fishing site, it would need to be rebuilt.

This site is on an embayment formed by dredging material from the construction of I-84. There is a breakwater on the downstream end of the embayment with a deteriorated revetment on the riverward slope. There is no filter behind the revetment to prevent the removal of the fine- to medium-grained material in the native soil by wave action. Therefore, the support of the revetment stone is removed, and the stone moves downslope. The beach gradually slopes toward the Columbia River and is composed of shallow (less than 3 feet) silty sand. An occasional boulder up to 4 feet in diameter is found on the beach. A near-vertical slope, 3 feet high, has formed from wave action on the western portion of the site shoreline. The uplands on this site consist of gently rolling terrain. The soils are shallow (3 feet or less) and composed of silty sand with traces of gravel over basalt. Boulders and rock outcrops are visible on the uplands. Vegetative cover is sparse, and, where removed, the area may be susceptible to wind erosion. The ground cover in this area is mainly grasses and sagebrush.

Access to the site is on a poorly maintained dirt road west of Quesnel Park. There are exit and entrance ramps from I-84 near Quesnel Park. A gravel road provides access to Quesnel Park from the freeway ramps.

Field observations identified 3 groups with 4 individuals per group. Three vehicles with boat and trailer were observed in support of Treaty fishing. Commercial fish buyers were not observed at the site.

t. Alderdale Treaty Fishing Access Site. This site is on the Washington shore in Klickitat County near RM 257.5 on the John Day pool. This site is shown on plate V in Appendix B.



The site is bounded by the Burlington Northern Railroad main line on the north and by the Columbia River on the south. Also included in the site is a former public park under Corps jurisdiction that has occasional public camping and sports fishing use and no observed Tribal fishing use.

There is a long beach 50 to 100 feet wide composed of river wash cobbles and gravels with a sand matrix. The beach slope is flat or nearly so except near the edge of the river where wave action has formed a near-vertical slope approximately 2 feet high. This slope extends upstream (east) to the revetment protecting the access road to the site. Wave action has removed fine- and medium-grained material from behind the revetment, causing the downslope movement of the stone. A filter was not placed between the native soils and the revetment stone to prevent loss of material by wave action.

Upland from the beach is a gently sloping terrace covered with several feet of soil composed of silty sand. This terrace extends approximately 300 feet to the toe of the railroad fill. Much of the upper few feet of the terrace is fill material from off-site excavation.

Vehicular access to the site is on a narrow paved road off SR 14. The road passes under the railroad, then parallels the toe of the railroad fill.

The Corps observed little or no Treaty fishing on the site by Tribal fishers. No evidence was found that commercial fish buyers use the site.

u. Alder Creek Treaty Fishing Access Site. This site, shown on plate W in Appendix B, is on the Washington shore in Klickitat County near RM 258.0 on the John Day pool.

The site is between the Burlington Northern railroad to the north and the Columbia River on the south. It is narrow (100 to 150 feet wide). There are federal lands upstream (east) of the site that could be included in the designated site. But again, these federal lands are also narrow. There has not been much public use. There is a narrow beach along the river composed of a shallow deposit of medium to coarse sand with dense surface deposits of cobbles and boulders. Any boulders near where facilities are planned will have to be removed. The gravel upland terrace gently slopes toward the river; its surface is made up almost completely of quarry rock of unknown depth.

Sparse vegetative cover on the uplands consists of grass and sagebrush. Waist-high shrubs and locust grow in the transition zone between the beach and the upland terrace.

Site access is a gravel road off SR 14 that is in good condition. Ownership of the road is unclear. The road appears to have been constructed for access to the railroad industrial site adjacent to Alder Creek. The road is narrow where it passes under SR 14 and the railroad.

River access potential for this site is considered low. The site topography is very rocky, and the nearshore water depths are too shallow for launching boats.



The Corps observed little or no Treaty fishing on the site by Tribal fishers. No evidence was found that commercial fish buyers use the site.

v. Crow Butte Treaty Fishing Access Site. This site, shown on plate X in Appendix B, is on an island north of the main river channel near RM 262.0 on the John Day pool.

Washington State Parks Commission leases over half of the island (west side) from the Corps. The remainder (east side) of the island is included in the Umatilla National Wildlife Refuge. The legislated site includes a portion of the Crow Butte State Park and would negatively affect the facilities and use of the park. Federal lands outside the existing public park were evaluated for development of a Treaty fishing access site. All of the land is currently leased by Washington State Parks Commission, and the final site selection was coordinated with park officials.

There are several soil types on the island. The shoreline generally consists of a narrow beach that passes into rolling uplands, then into steep hills near the apex of the island. The beaches gradually slope toward the river and are composed of sandy gravels with an occasional basalt boulder; they are periodically flooded. At the head of the beach there is generally a near vertical slope 2 to 6 feet high that is the result of wave action. Soils on the upland slopes are composed of sand and silty sand. Basalt outcrops are visible on the steep hillsides.

Much of the area adjacent to the existing park, including the marina, swimming area, boat launch and portions north to the causeway, was a borrow material source for construction related to the John Day Dam project. As a result of the excavation, the offshore water depths appear adequate for developing river access facilities in this area. However, an abandoned railroad grade crosses the northwest portion of the access channel, limiting passage of boats during low water to a narrow, confined channel.

Vegetative cover on the island, except in the existing park area, is sparse and consists of grasses, brush and small cactus. There are no trees on the island outside the existing park. Access to Crow Butte is from SR 14 on a paved road in good condition.

Field observations identified two camps with 3 to 4 individuals per camp and four vehicles with boat and trailer. These camps generally stay for the spring and fall fishing seasons. Commercial fish buyers occasionally use the site.

w. Faler Road Treaty Fishing Access Site. This site, shown on plate Y in Appendix B, is on the Oregon shore in Morrow County near RM 267.5 on the John Day pool. This site will satisfy the legal requirements for both legislated sites in the immediate vicinity, Faler Road and Boardman, and has received the endorsement of the four Tribes. Development would provide facilities for Treaty fishers.

Field observations identified four camps with 3 to 4 individuals per camp and four vehicles with boat and trailer. An average of two vehicles on-site support treating fishing activities.

These camps generally stay for the entire fishing season and primarily use tents for shelter. Commercial fish buyers were occasionally on-site to purchase fish. The four Tribes did not comment on use at Faler Road/Boardman.

x. Boardman Treaty Fishing Access Site. This site is on the Oregon shore in Morrow County near RM 269 on the John Day pool. The Boardman site does not have sufficient area for development. The legislated site falls within lands under a City of Boardman lease and is used for the city's water supply. Hence, an expanded Faler Road site was chosen. Faler Road is on undeveloped federal land situated between the Union Pacific Railroad to the south and the old U.S. Highway 30 right-of-way and Boardman Park on the north and includes the legislated Faler Road Site. The four Tribes and BIA have endorsed this alternative site. The legislated site will be eliminated.

### 2.1.3 Acquisition Sites.

The land acquisition study has been completed and is documented in the Land Acquisition Study report. *Public Law 100-581 Title IV Columbia River Treaty Fishing Access Sites, Columbia River, Oregon and Washington, Land Acquisition Study*, Portland District, February 1994 (*Land Acquisition Study*). The information presented in the Land Acquisition Study report has been included in the report, in section 1.35 and 3.2.23.

## 2.2 Result of No Federal Action

If the project is not implemented, additional Treaty fishing access and/or sites on the Columbia River will not be provided. Approximately 40 acres (five sites) have been provided to date. The in-lieu fishing sites would continue to deteriorate, and more Tribal fishers would probably use the public parks. The four Tribes would most likely refuse to enter into agreements permitting joint public and private use at legislated sites that include public parks. This could displace public recreation and overload other public parks along the Columbia. Confrontations between Tribal fishers and the public may escalate.

## 2.3 Problems and Opportunities

Under 1855 treaties, the four Tribes ceded to the Federal government all title to Tribal lands other than the reservations they then occupied and reserved for themselves the right to fish at their usual and accustomed fishing sites along the banks of the lower Columbia River. However, construction of Bonneville Dam and subsequent filling of the pool flooded approximately 40 of these sites. Through a series of negotiated settlements and legal actions, the Federal Government agreed to compensate the Tribes for loss of historic fishing sites with developed sites along the pool. As a result of misunderstandings and the lack of appropriations, only five sites have been provided for fishing access to date.

Tribal fishers have had to seek new Tribal fishing sites with the loss of their usual and accustomed sites along the lower Columbia River. River access is available at public parks for

a majority of the Tribal fishers. These parks were primarily developed for recreational activities and have insufficient facilities to accommodate public recreation and Treaty fishing. Loading and unloading fishing nets and off loading fish can occupy the boat ramps and docks much of the daylight hours at public parks during peak fishing seasons. Most public parks do not have facilities for processing fish (fish cleaning stations and drying sheds) or staging areas for cleaning nets, net repair and net drying. In addition, Tribal fishers from the reservations require camping areas for several months or in some instances nearly year-round, depending on the site and the fish runs. Many of the Tribal fishers follow the fish migrations up the river, camping at different locations in any one season.

Many public park administrators are frustrated in attempts to manage the public parks for both public recreation and Tribal fishing. The recreational public and Tribal fishers are also frustrated as they compete for limited river access and camping facilities. Physical characteristics of the Columbia River Gorge limit lands available for river access. Much of the shoreline is basalt cliffs with occasional narrow beaches and gentle slopes. A large percentage of the land suitable for development has been used for roads, railroads, recreational parks, residential structures and industrial sites. Enactment of the Columbia River Gorge National Scenic Area Act has imposed restrictions on future development within the lower Columbia River. These restrictions do not apply to the Treaty fishing access sites program but have increased public awareness of development within the Columbia River Gorge National Scenic Area.

Public Law 100-581 is intended to provide 27 new Treaty fishing access sites and rehabilitation of five in-lieu fishing sites. Implementation of this legislation would fulfill the Federal government's 1939 Agreement to compensate the four Tribes for loss of historic fishing sites along the lower Columbia River that resulted from construction of Bonneville Dam. Providing these Treaty fishing access sites for the exclusive use of the four Tribes would reduce frustrations for public park management, Tribal fishers and public recreationists. Potential future conflicts between Tribal fishers and the recreational public could be avoided. These sites also have the potential to reduce the Tribal fishers' operational costs and preserve the quality of the fish taken with better handling and processing facilities.

## **2.4 Study Purpose and Scope**

The purpose of this study is to identify a cost-effective, functional, and comprehensive site development plan for all Columbia River Treaty Fishing Access Sites authorized by the law.

### **2.4.1 Levels of Output.**

Each development plan will provide a given level of output(s). For this report, outputs are defined as **river access** and **land-based activities**. River access is defined as the movement of persons, equipment and boats from land to water (and vice versa) and is usually accomplished via boat ramps. Land-based fishing activities are related to cultural, religious and commercial activities, such as cleaning, drying, smoking, or other fish processing activities, and trading

and selling of fish. Also included is riverside camping and ancillary fishing activities such as preparation, maintenance and repair of nets and other fishing gear.

In determining the output for the river access, the most important function for the Tribal fishers is setting, tending and retrieving their nets. Tribal fishers were interviewed and requested to describe their method of operation. Generally, they begin setting gill nets by boat at 6:00 a.m. Monday morning and retrieve the nets on Friday of the same week within the designated fishing season. Five to eight nets can be conveniently set, depending on the size of the boat, for each trip out on the river. The first set of nets are placed in the boat at a convenient time prior to the 6:00 a.m. Monday morning start time. It takes approximately 15 minutes to rope out and set one net at the registered net location. It is estimated to take 30 minutes to return to the boat ramp for another load of nets under favorable weather conditions. After reaching the ramp, approximately one hour is required to feed nets from a pickup truck to the boat for proper folding and placement. It again takes the boat about 30 minutes, under favorable weather conditions, to return to vacant net locations.

After the interview with the Tribal fishers, it was determined that the boat ramp was the controlling feature in identifying the output for the river access. Using the time intervals previously discussed, four boats with a capacity for six nets, and a time period of 6:00 a.m. to 5:00 p.m., a boat ramp was estimated to have a capability of serving 84 net locations for Treaty fishing. This would provide Tribal fishers with the opportunity to set, tend, and retrieve an estimated 84 nets in a normal week of fishing. Numerous factors affect the capability of a boat ramp on a daily basis, including weather conditions, fishing seasons, fishing equipment, etc.

Tribal fishers will also use the ramp and dock to transfer the fish from the boat to the land for processing. By law they are required to pull the nets once a day to remove fish. Depending on the runs and the fishing season, the nets may be pulled as often as three times a day. Additionally, the ramps and docks will be used for cleaning the nets as needed. The frequency of cleaning the nets is dependent on the river flows, fishing seasons, weather, and other conditions.

The output for the land-based activities is camping areas. Generally, if formal camping is provided, more land-based facilities are included, such as potable water and restroom/shower building. The number of camping areas varies from site to site and is based on anticipated use and physical site characteristics.

#### 2.4.2 Development Features.

All-weather access and improvements comparable to those constructed by the National Park Service for National Parks are to be developed at each site. These plans will be developed in consultation with the four Tribes and BIA. The approval of the four Tribes and BIA on the location and level of development of each site is necessary to ensure acceptability and eventual transfer of the sites after construction.



#### 2.4.3 Alternative Sites.

Where appropriate, alternative sites will be evaluated to provide separate facilities for public recreation and Tribal fishers. Treaty fishing requires extensive use of boat ramps and docks for loading and unloading nets, unloading fish and cleaning nets. During commercial seasons, Tribal fishers require use of boat ramps and docks for most of the daylight hours. Camping facilities adjacent to the river are also required for the Tribal fishers.

Eight of the twenty-one federal sites identified in P.L. 100-581 currently support public river access. Treaty fishing use and public river access generally exceed the capability of these public facilities. P.L. 100-581 only authorizes development of treaty fishing access. There has been strong public pressure to preserve public river access and recreation facilities at the existing sites. The four Tribes and BIA also want to avoid public criticism in the loss of public recreation facilities. Therefore, alternatives to provide separate fishing access for the Tribal fishers will be investigated.

#### 2.4.4 Environmental Impacts.

Every effort will be made to avoid or at least minimize environmental impacts in development of the sites. An Environmental Assessment (EA) and Coordination Act Report (CAR) will be completed during this study and included in the report. The EA follows the main report in the green pages and the CAR is in Volume II, Appendix E. Biological assessments will also be completed on the appropriate Endangered Species Act (ESA) listed species.

#### 2.4.5 Cultural Resources.

Preliminary cultural surveys will be completed to assess cultural resources and define the mitigation required. A Memorandum of Agreement (MOA) will be developed defining roles and responsibilities for data recovery on the project. This Memorandum will be signed by both Oregon and Washington State Historic Preservation Offices (SHPO), each of the four Tribes, BIA, the Corps of Engineers and the Advisory Council.

#### 2.4.6 Requirements of Public Law 100-581.

The law identified 23 sites for Treaty fishing access sites along the lower Columbia River for development to support Treaty fishing by the four Tribes, Section 401(a) sites. North Dalles and Maryhill were not on federal land and were not considered for development. The law also directs the Secretary of the Army to identify and acquire six sites adjacent to Bonneville Pool from willing sellers for treaty fishing access; these sites will be improved, as will the facilities at five existing in-lieu fishing sites. Acquisition of the six sites was not to exceed \$2 million. Camping and park facilities comparable to those provided by the National Park Service at National Parks were to be developed at the 32 authorized sites. Improvements include: all weather access roads and boat ramps; docks; sanitation; fish cleaning, curing, and ancillary fishing facilities; electrical and sewage; and landscaping. Other improvements identified for



two of the in-lieu fishing sites were dredging at Wind River and construction of a boat ramp at or near Cascade Locks.

#### 2.4.7 Site Development and Facility Criteria.

Standard recreational facilities criteria and applicable federal, state and local criteria for sanitary facilities, water supply, highway access, and boat ramps were used. Development of facilities will require durability and low maintenance due to the isolation and harsh conditions of these sites. Proposed development at each site has been based on anticipated use as determined by Corps resource management specialists. Field observations and interviews were conducted in 1988 and 1989 during peak fishing season. Observations included the number of vehicles with and without trailers, camps and campers at each campsite, and whether or not commercial fish buyers used the site.

a. Barrier-free Facility Design. All facilities and sites will be in accordance with applicable provisions in the Uniform federal Accessibility Standards (49 FF 3128) and Engineering Manual (EM) 1110-1-400. Site conditions limits barrier-free access to boat ramps and docks at many of these sites. Not all, but several campsites will be barrier-free. Restroom facilities will be barrier-free.

b. In-Lieu Fishing Site Facilities. Efforts will focus on cleaning up these sites and rehabilitating existing facilities to a functional, maintainable condition. Facilities that cannot be repaired will be removed and replaced with new facilities to accommodate site activity and conditions. Roads will be upgraded or repaired as needed.

c. Railroad Crossings. New or existing railroad crossings that require upgrading will meet easement requirements of Burlington Northern railroad. This generally requires a rubberized crossing material, signals, drop arms and asphalt pavement for at least 50 feet on either side of the crossing.

d. Highway/Road Access. No improvements to county roads, state highways or interstate freeways are anticipated. Horizontal and vertical road alignments and cross-section elements will be based on Corps of Engineers' Engineering Manual (EM) 1110-2-410, *Design of Recreation Areas and Facilities - Access and Circulation*. The basic design criteria used to layout the proposed roads was:

- Maximum design speed ----- 20 mph
- Two lane road width ----- 20 feet
- One lane road width ----- 12 feet with turnouts
- Design vehicle -----passenger vehicle with a trailer

e. Boat Ramps. The boat ramp design will be based on EM 1110-2-410 and *Layout and Design Guidelines for Recreational Boat Launching and Transient Tie up Facilities*, Oregon State Marine Board (June 1988). The basic boat ramp criteria are:

- Lane width will vary from 14-20 feet, depending on estimated use level.
- Length to accommodate differing pool elevations. Ramps will be designed to operate at minimum pool.
- Construct ramps with pre-cast concrete planks, grooved to provide traction.
- Minimum and maximum slopes of 12-16 percent
- Direct surface runoff away from ramp
- Provide sufficient area at top of ramp to accommodate turning and parking.
- Provide a stabilizing feature, such as groins, for erosion protection, siltation control, and to make launching and recovery safer and easier. Most sites studied will require such a structure.

f. Boat Docks. One boat dock placed adjacent to each ramp will allow dual-sided use when launching and loading boats. The length will be sufficient to allow launching at minimum operating pool levels with a minimum water depth of 4 feet. The width will be a minimum of 6 feet. Dock design will be based on EM 1110-2-410 and *Layout and Design Guidelines for Recreational Boat Launching and Transient Tie up Facilities*.

g. Power. At sites without electricity, the nearest location for power is from the power lines that run along the highways. Aerial lines and meters from the source to the site will be required. Above-ground transmitting systems are preferred because of the rugged terrain and rocky subsoil, which make underground systems impractical for most locations.

h. Potable Water. Proposed potable water systems will be sized to dispense 10 gallons per minute with 300-gallon storage capacity for peak use. Site analysis will determine available well water. Where there is basalt rock, drilling may be cost prohibitive depending on depth. Without available adjacent recreational or municipal water source, site amenities without water will be reevaluated. Surface water sources will not be considered. Potable water requires chlorination to meet local standards. This level of site analysis assumes that water will be available at the sites where wells are proposed. Pump houses will be approximately 10 feet square using concrete blocks and pre-finished steel siding at the upper walls and roof.

i. Sanitation Facilities. Sanitary and solid waste facilities will be at sites where development will be provided. Placement and other design criteria will meet state and local code requirements.

j. Restroom Facilities with Showers. A restroom/shower building will be constructed at sites that have access to a municipal sewer system or where the site is suitable for on-site disposal. Lift stations will be required to pump the sewage to the nearest gravity line. There will be a mechanical/storage room between the men's and women's areas. This room will be insulated and heated to 45°F to prevent the pipes from freezing. The women's room will have 3 toilets, a sink, and 2 shower stalls. The men's room will have a toilet, two urinals, a sink, and two shower stalls. All facilities will be barrier-free.

k. Vaults. A vault toilet system is proposed where a public sewer system or on-site disposal is not accessible. One vault toilet consists of a men's and women's area. The number of vault toilets at a site will be based on anticipated use. Access to vault toilets will be barrier-free.

l. Waste Water. Handling of all waste water must meet local, state, and federal codes. Treatment will be site specific, depending on subsurface soil conditions and availability of water.

m. Solid Waste. The solid waste disposal system will consist of a dumpster placed on a concrete dumpster pad in a central area. The dumpster will be leased and serviced by a private contract and administered by Bureau of Indian Affairs. The number of dumpsters required are based on anticipated use.

n. Parking/Camping Areas. Location and angle of parking will be determined by individual site circulation patterns, proximity to other facilities, and other characteristics. Parking areas have been sized to accommodate vehicles pulling trailers. The spaces will be 10 feet wide by 42 feet long. A minimum inside turning radius of 15 feet will be provided throughout. Heavy-use areas will be paved to reduce long-term maintenance costs, facilitate stripping, and minimize dust.

Campsites will conform to topography patterns to minimize extensive modifications. Recommended campsites are based on historic and anticipated use, and site constraints. Two types of camping sites will be developed: individual single family sites and group campsites of varying sizes. Individual campsites will include a back-in stall for one vehicle and trailer, picnic table, fire pit and a tent/activity area(s). Group campsites will include multiple parking spaces, picnic tables, tent/activity area, and a common fire pit. Shelters are identified as a group campsite. Common areas will have crushed gravel surfaces to minimize maintenance, dust and erosion.

o. Fish Cleaning Stations. Fish cleaning stations will be dual-sided steel working surfaces that drain to an outside "V" shaped trough which will then drain to side catch screens. Solid waste from these catch screens will require hand removal. Movable water nozzles will be overhead. Wood or polyethylene cutting surfaces can be attached to steel surfaces and replaced as needed. The entire station will be anchored to a concrete slab. The drain will be attached to an on-site sanitation system or to a gray-water drainfield specific for

each station that meets state and local codes. These stations will be placed near drying sheds, boat ramps and dumpsters.

p. Fish Drying Sheds. Traditional and ceremonial values of fish drying sheds require that they be designed and built by the users. For this report, and the budget baseline cost estimate, the following criteria was used.

- Shed locations will maximize air circulation.
- Sheds will be approximately 20 feet wide by 56 feet long.
- Buildings will have square, tubular steel columns and glue-laminated wood beams.
- Gable roofs will be used with wood planking and composition shingles.
- Shed walls will consist of expanded metal screens welded to steel columns to allow air movement through the buildings.
- There will be an entry gate at each end of the building.

q. Net Repair Areas. The net repair area will consist of a 25-foot square concrete slab sloped to drain. A faucet will be installed where water is available.

r. Shelters. Shelters will be at various locations in the camping areas and designated as group camping sites. The octagonal shelter will be constructed of galvanized steel columns and beams with galvanized steel metal roofing and wall panels. The slope of the roof will match adjacent buildings and have a turbine type, wind-operated ventilator at the peak. One side of the shelter will have a rock face fireplace. The fireplace and two walls will be oriented to protect occupants from prevailing winds. Buildings will have a concrete slab floor.

s. Vegetative Plantings. Vegetation will provide wind breaks, shade, and delineate public and tribal use. Vegetation will also screen fishing sites from major highways to provide privacy. At sites adjacent to public parks with a well or public utility water access, an in-ground irrigation system will be used. At these sites, lawns and vegetation will be established around site facilities at a level comparable to the adjacent public parks. This was to avoid a perception problem between the public park and fishing site. Lawns and an in-ground irrigation systems will require a commitment to long-term and regular maintenance. At sites where water is not available and low use is expected, vegetation will be limited to species native to the area. These plants will only be irrigated during a designated establishment period. Additionally, areas disturbed during construction will be seeded with dry grass, mulched, and watered during this period.



Vegetative plantings for landscaping the sites shall be in accordance with the Presidential Public Paper dated April 26, 1994, Subject: Environmentally Beneficial Landscaping. The landscaping concept developed for treaty fishing sites includes the use of native vegetation where possible. All plantings including the use of native species will require some topsoil placement and temporary watering during the establishment period. Sites that are located adjacent to existing public parks were developed with a comparable landscaping concept similar to that of the public parks. This involves irrigated lawn areas, shade trees, shrub plantings and topsoil placement. Irrigated lawn areas are hardened surfaces for more intensive use to prevent excessive erosion and limited to areas of high activity. Native plant species are not conducive to this type of use; therefore, more hardy proven species will be used where hardened surfaces are required. Tree and shrub planting will be used for screening and wind and shade protection. The size of the irrigation system and amount of site plantings were negotiated with the four Tribes and BIA and were primarily restricted to heavily used areas (approximately one acre). Only those areas of highest use adjacent to public parks have an irrigation system. The remainder of the site disturbed by construction activities will be seeded with native dry grass. Native trees and shrubs will be planted in areas of minimum use where delineation of the boundary or screening are required.

t. Fencing. Fencing will delineate use, land ownership, and right-of-way boundaries, not solely as a deterrent to public access. A 4-foot-high wire fence with one strand of barbed wire along the top will be used to deter people from climbing over and damaging the integrity of the fencing. A wire fence is considered less obtrusive on the land, inexpensive, and simple to install and repair.

Fencing also will be used where needed for safety purposes at those sites immediately adjacent to highways, railroads, and steep slopes. This fencing will include a 6-foot-high chain link fence.

#### 2.4.8 River Access Facilities.

The facilities necessary for river access are a boat ramp, dock and/or groin. Not all sites will require a groin adjacent to the boat ramp to prevent erosion and provide protection from the wind during launching and loading of boats. Further, not all sites will have a boat ramp and dock. Physical site characteristics may prevent development of a conventional boat ramp at any given site.

#### 2.4.9 Land-Based Facilities.

The facilities considered for land-based activities, depending on the use and physical characteristics of the site, are a water system, net repair area, fish drying shed, fish cleaning station, camping areas, sanitary system, solid waste disposal system, shelters, parking areas, and/or outside lighting. Not all sites will have the full range of facilities.



#### 2.4.10 Fixed Costs.

Fixed-cost items are mobilization and demobilization, outside lighting, asphalt paving or gravel surfacing, boundary fencing and site cleanup. These apply to both river access and land-based facilities. The costs for these items were more indicative of the location rather than site outputs, river access and land-based activities. This especially applies to asphalt pavement and gravel surfacing because the length of the access roads would affect the quantities of each. Therefore, these fixed-cost items are for comparison purposes.

#### **2.5 Constraints**

Twenty-two Treaty Fishing Access Sites authorized by P.L. 100-581 on federal land were referenced on maps with delineated boundaries. The four Tribes requested these sites in testimony at Senate hearings in 1987 and 1988. Any adjustments in the locations and/or boundaries requires concurrence with the four Tribes, BIA and subsequent Congressional approval.

Seven of the 22 federal sites identified in P.L. 100-581 include public parks, or portions thereof, and are administered by the Corps. These public parks include Avery, Giles French, Lepage, Sundale, Roosevelt, Quesnel, and Alderdale. They all provide public recreation facilities for river access and/or camping. Three other sites (Faler Road, Boardman, and Crow Butte) impact federal leases with local entities. Developing these sites as identified in the legislation for Treaty fishing access is not acceptable to the lessees.

Existing development and physical conditions constrain the development of certain sites. All but one Treaty fishing access site, Faler Road, are within the Columbia River Gorge National Scenic Area, which extends from RM's 121 to 264. Much of the shoreline of the Columbia Gorge consists of basalt cliffs with occasional narrow beaches and gentle slopes, a large percentage of which have been developed for roads, railroads, recreational parks, residential structures and industrial sites. A major railroad has been developed on each shoreline of the Columbia River through the Gorge. The railroad right-of-way is several hundred feet wide and includes extensive portions of the shoreline. Interstate 84 is on the south shoreline of the river. Both railroad and freeway rights-of-way occupy portions of the developable land adjacent to the Columbia River and restrict development of many of the Treaty fishing access sites.

The six Treaty fishing sites authorized to be acquired on the Bonneville Pool must be purchased from willing sellers. Identifying willing sellers with lands suitable for development of Treaty fishing access sites limits the potential alternatives to be evaluated.

## 2.6 Site Evaluations

### 2.6.1 Legislated Site - 401 (a).

A multi-disciplinary team consisting of landscape architects, engineers, land use planners, environmental specialists, real estate specialists, and fishery and wildlife biologists evaluated each of the sites identified on federal land by P.L. 100-581. An inventory conducted on each site during an extensive field review included topographic slope, site access or potential access, acreage, and the physical site characteristics. Existing site features and utilities (power, water, sewer) were noted and documented. Mapping showing locations of existing utilities is available at the District. The physical site characteristics were evaluated to determine the placement of river access and land-based facilities. The collective data and information was recorded and are available at the District office.

Alternatives will be identified and evaluated for those designated Treaty fishing sites on federal land where: (1) physical site characteristics limit development of Treaty fishing access, (2) a portion or all of the site is under lease to other government agencies, and/or (3) existing public recreation facilities are affected. These alternatives will be generated by Portland District staff in consultation with the four Tribes and federal, state, and local agencies.

Development plans will be generated for identified sites and selected alternatives that had the potential to meet the study purpose at or near the identified sites. The conceptual development plans will be prepared at a scale of 1 inch equals 150 feet. Each plan will display the approximate location and alignment of development facilities including access road, boat ramp, groin, camping areas, parking areas, sanitary facilities, water well, landscaped areas, fish cleaning station, fish drying shed, net repair area, and/or shelters.

### 2.6.2 Acquisition Sites - 401(b)

A multi-disciplinary study team visited the 14 sites identified in the David Evans Associates study as having good development potential (see section 1.3.5) and filled out a site evaluation form with appropriate notations and remarks on-site conditions.

Critical issues covered on the site evaluation form included the following:

- a. Fish and Wildlife. Endangered species, agency planning reports and site resources.
- b. Physiographic Features. Site material types and extent, material engineering characteristics, topography and site dimensions.
- c. Engineering and Design Criteria. Site capability to provide road access, railroad crossing, river access, buildings, camping, parking, net drying and fish cleaning facilities, boat ramp and docks.

- d. Utilities. Site potential for domestic water, sewage disposal, electrical and telephone.
- e. Vegetation. Identify and assess value for wildlife habitat, wetlands and aesthetics.
- f. Site Capability Assessment. Site acreage, acres suitable for development, potential buffer, near-shore water depth, current velocity, and others as required.

## **2.7 Alternatives Considered**

### **2.7.1 Introduction**

Two or more alternatives were considered for each Treaty fishing access site, Section 401(a), and in-lieu fishing site in this study. Alternative sites were also evaluated for sites that impacted public facilities and/or for those sites that had physical constraints. Each alternative generally considered a different level of development and/or different site(s). Alternatives permitted comparative evaluations of minimal developments with higher levels determined by tribal needs and justification.

The site and/or levels of development were evaluated in consultation with the four Tribes and BIA throughout the alternative evaluation process.

Alternatives were generated for the *Working Document* (December 1990) at many of the treaty fishing access sites, and these conceptual development plans were circulated to the four Tribes, BIA, affected municipalities and resource agencies. Refer to paragraph 1.3.6 for detailed discussion on the *Working Document*. Generally, these are Alternatives 3-5.

After consultation on the working document development plans, the Corps multi-disciplinary team revised the plans. Consultation meetings were scheduled with the four Tribes and BIA at the monthly task force meetings, following the revisions to further clarify the development necessary for the identified sites. Several consultation meetings were conducted with Washington State Parks Commission staff to review development plans for Maryhill and Crow Butte Treaty Fishing Access Sites. City of Boardman officials were also contacted and requested to comment on the development at Faler Road and Boardman Treaty Fishing Access Site.

A Draft Phase Two Interim Evaluation Report was completed in April 1993 and circulated for concurrent review by Portland District, the four tribes, and BIA. A 3-day conference was held in The Dalles, Oregon, (May 11-14, 1993) to review the proposed plans in the interim Phase Two report with members of the four Tribes and BIA representatives. Generally, Alternative 2 plans included in this report were reviewed for each site. One exception is Threemile Canyon, where Alternative 3 was the development plan included in the Interim Phase Two Report. See Appendix C, Tribal Comments.

After the May 11-14 conference and Portland District review, the Corps multi-disciplinary team again revised the plans. This revision included further consultation with the four Tribes and BIA at monthly task force meetings to clarify refinements in the plans. This revision is represented by Alternative 1 for each of the treaty fishing access sites discussed.

Sections 2.7.2 through 2.7.23 present the alternatives considered for the Columbia River Treaty Fishing Access Phase Two sites, generally, including a conceptual development site plan for each alternative, along with a table displaying the development features of each site.

**2.7.2 Wind River In-lieu Fishing Site.** The site was developed as a Treaty fishing access site and transferred to the Department of Interior more than 30 years ago. Facilities at the site are no longer functional. A large shoal adjacent to the boat ramp prevents launching of small boats. Two alternative levels of development were evaluated to rehabilitate the site.

a. **Alternative 1.** Features for Alternative 1 are shown in table 2-1 and on plate 1. The facilities proposed are minimal. Removal of the shoal adjacent to the boat ramp would require annual dredging of approximately 6,700 yd<sup>3</sup> of river sediment. This alternative does not propose removal of the shoal adjacent to the boat ramp. Without boat access, the use of the site is expected to be low and primarily related to camping for ceremonial purposes.

For this alternative, many of the existing facility remnants are to be removed or secured, including removal of the foundations (restroom, fish cleaning station and drying shed) and sealing and/or capping of the on-site well.

b. **Alternative 2.** Features for Alternative 2 are shown in table 2-2 and on plate 2. This alternative will re-establish river access with a predicted annual dredging of river sediment (6,700 yd<sup>3</sup>) adjacent to the existing boat ramp. With river access available, use is expected to increase, resulting in a higher level of facility development.

Table 2-1 -- *Alternative 1, Wind River In-Lieu Fishing Site (RM 155)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
None	
<b>Land-Based Facilities</b>	
Vault toilets . . . . .	1
Camping sites . . . . .	4
Parking areas (gravel) . . . . .	6
Dumpster pads . . . . .	1
Seeding . . . . .	4 ac
<b>Fixed Costs</b>	
Mob-Demob . . . . .	LS
Gravel surfacing . . . . .	1,910 yd <sup>2</sup>
Site cleanup . . . . .	LS

Table 2-2 -- *Alternative 2, Wind River In-Lieu Fishing Site (RM 155)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Existing	
Dredging .....	6,700 yd <sup>3</sup>
<b>Land-Based Facilities</b>	
Well and new pump house .....	1
Water system .....	1,000 lf
Vault toilets .....	2
Camping sites .....	6
Parking areas (gravel) .....	6
Dumpster pads .....	1
Planting .....	Several
<b>Fixed Costs</b>	
Mob-Demob .....	LS
Gravel surfacing .....	10,000 ft <sup>2</sup>
Site cleanup .....	LS



### 2.7.3 Cooks Inlet In-lieu Fishing Sites.

The site was designated as a Treaty fishing site more than 10 years ago and has been developed and transferred to the Department of Interior. The site covers approximately 2.9 acres. Facilities such as the restroom, water and chlorination systems, power, and lights are in need of rehabilitation and/or replacement.

a. Alternative 1. Features for Alternative 1 are shown in table 2-3 and on plate 3. Showers have been added to the restroom building at the request of the four Tribes and BIA, in addition to replacement/repair of other features in the building. A water storage tank will be installed to accommodate peak demand on the water system, and major repair of the water and chlorination systems are recommended. The gravel access road has high use and, therefore, will be paved to reduce maintenance and dust from vehicular traffic. The parking area will be resurfaced with gravel. The existing dock will be repaired, and an additional dock will be added to provide more moorage space as requested by the four Tribes and BIA. The electrical system is to be restored, and outside lighting has been added. The fish cleaning station must be replaced. Two dumpster pads will accommodate solid waste disposal.

b. Alternative 2. Features for Alternative 2 are shown in table 2-4 and on plate 4. Facilities requiring rehabilitation are the restroom, water and chlorination system, access road, parking area, docks, power system and lighting. Replacement/repair of major features in the restroom building are included, showers, however, are not included. The gravel access road and parking area will be resurfaced with gravel. The existing dock is to be repaired, but an additional dock will not be included. The electrical system will be repaired and outside lighting is to be installed. Two dumpster pads will accommodate solid waste disposal. A new pumphouse is to be constructed.

Table 2-3 -- *Alternative 1, Cooks Inlet In-Lieu Fishing Site (RM 162)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Existing	
Repair existing dock .....	LS
New boat dock .....	1,060 lf
<b>Land-Based Facilities</b>	
Rehab pump house .....	1
Water system .....	700 ft
Water tank .....	1
Sewer system .....	200 lf
Fish cleaning station .....	1
Restroom/shower building (rehab) .....	1
Parking areas (gravel) .....	Existing
Dumpster pads .....	2
Site Seeding .....	LS
<b>Fixed Costs</b>	
Mob-Demob .....	LS
Outside lighting system .....	1
Gravel surfacing .....	1,500 yd <sup>2</sup>
Asphalt paving .....	750 yd <sup>2</sup>
Site cleanup .....	LS

Table 2-4 -- *Alternative 2, Cooks Inlet In-Lieu Fishing Site (RM 162)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Existing	
<b>Land-Based Facilities</b>	
Well and new pump house .....	1
Sewer system .....	1,600 lf
Fish cleaning station .....	1
Restroom building (rehab) .....	1
Parking areas (gravel) .....	Existing
Dumpster pads .....	2
Planting .....	Several
<b>Fixed Costs</b>	
Mob-Demob .....	LS
Outside lighting system .....	1
Gravel surfacing .....	6,000 yd <sup>2</sup>
Site cleanup .....	LS

#### 2.7.4 Avery Treaty Fishing Access Site.

Alternatives evaluated for this site are on the Washington shore in Klickitat County between RM 197.0 and 197.8 on The Dalles pool. Alternatives 1 and 2 include a Corps' administered public park (Avery Park, RM 197.4) with a graveled parking lot, a vault toilet, picnic tables, small groin and a damaged boat ramp. Alternative 3 is on federal land upstream of Avery Park, RM 197.8 and Alternative 4 is downstream at RM 197.0.

The soils are too shallow to provide proper treatment of effluent for a septic/drainfield system. The sites are also narrow and near the shore. Therefore, only a vault toilet system is considered for these alternatives.

a. Alternative 1. Features for Alternative 1 are shown in table 2-5 and on plate 5. It covers 3.1 acres. This alternative recommends development/transfer of the Corps' administered public park at this location, after improvements to facilities, for a Treaty fishing access site. Development for this alternative would include repair/upgrade of the existing boat ramp, groin repair, installing a boat dock, vault toilet building replacement, construction of a dumpster pad, seeding, and a gravel surface overlay for the access road and parking area.

b. Alternative 2. Features for Alternative 2 are shown in table 2-6 and on plate 6. It covers 3.1 acres. This alternative also recommends improving the Corps' administered public park, then transfer of the site for Treaty fishing access. Improvements include repair/upgrade of the existing boat ramp, groin repair, installing a boat dock, vault toilet building replacement, construction of a dumpster pad, planting/seeding, and a gravel surface overlay for the access road and parking area.

c. Alternative 3. The site for Alternative 3 is shown on plate 7. A conceptual development plan was not generated, since a large portion of the site extends into the Burlington Northern Railroad right-of-way. There was no authority in P.L. 100-581 to obtain lands from the railroad for development of Treaty fishing access. This alternative was developed for the Working Document.

d. Alternative 4. Features for Alternative 4 are shown in table 2-7 and on plate 8. It covers 3.7 acres. Development at this alternative includes a boat ramp, groin, boat dock, vault toilet, and graveling of the access road and parking area. Construction of a boat ramp will require excavation of in-situ basalt rock with blasting required before removal. A groin is also necessary for wind protection during launching and loading of boats and to prevent wave damage to the boat ramp and dock. This alternative was developed for the Working Document.

Table 2-5 -- *Alternative 1, Avery Treaty Fishing Access Site (RM 197.4)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Groin extension (150 ft) .....	1
Boat ramp .....	1
Docks .....	800 ft <sup>2</sup>
Dredging .....	6,000 yd <sup>3</sup>
<b>Land-Based Facilities</b>	
Vault toilets .....	1
Parking areas (gravel) .....	6
Dumpster pads .....	1
Seeding .....	LS
<b>Fixed Costs</b>	
Mob-Demob .....	LS
Gravel surface .....	2,670 yd <sup>2</sup>
Site cleanup .....	LS

Table 2-6 -- *Alternative 2, Avery Treaty Fishing Access Site (RM 197.4)*

<b>River Access</b>	
Groin extension (150 ft) .....	1
Boat ramp .....	1
Docks .....	800 ft <sup>2</sup>
<b>Land-Based Facilities</b>	
Vault toilets .....	2
Parking areas (gravel) .....	6
Dumpster pads .....	1
Planting .....	Several
<b>Fixed Costs</b>	
Mob-Demob .....	LS
Gravel surface .....	2,670 yd <sup>2</sup>
Site cleanup .....	LS

Table 2-7 -- *Alternative 4, Avery Treaty Fishing Access Site (RM 197.0)*

<b>River Access</b>	
Groin .....	1
Boat ramp .....	1
Dock .....	1
Rock Excavation (blasting) .....	2,000 yd <sup>3</sup>
<b>Land-Based Facilities</b>	
Vault toilets .....	1
Parking areas (gravel) .....	25
Dumpster Pad .....	1
<b>Fixed Costs</b>	
Mob-Demob .....	LS
Gravel surface .....	5,800 yd <sup>2</sup>
Site cleanup .....	LS



2.7.5 Celilo Treaty Fishing Access Site. The Celilo site alternatives evaluated are on the Oregon shore in Wasco County, near RM 201.5 on the Lake Celilo Pool. Alternatives 1, 2, 4, and 5 are different levels of development at the legislated site. Alternative 3 presents development of a Treaty site within the Celilo Park just downstream of the legislated site.

a. Alternative 1. Features for Alternative 1 are shown in table 2-8 and on plate 9. This alternative proposes full development of the 7.6 acre legislated site. A well will be drilled to provide potable water and irrigation for lawn and plantings. Landscaping will be comparable to the level provided at the adjacent public park. Topsoil and mulch (4,100 yd<sup>3</sup>) are to be imported and mixed with in-site soils to produce a fertile soil for lawn and plants. The irrigation system will cover an estimated 110,000 ft<sup>2</sup>. Approximately one acre of the Celilo Public Park will be included in the Treaty fishing site for development of a drainfield, thus permitting on-site sewage disposal. Without this additional land, it would not be cost effective to provide a fish cleaning station and a restroom/shower building.

b. Alternative 2. Features for Alternative 2 are shown in table 2-9 and on plate 10. This alternative also proposes full development of the legislated site and covers 7.4 acres. A well will be drilled to provide potable water and irrigation for the lawn and plantings. Landscaping will be comparable to that provided at the adjacent public park. Topsoil (5,297 yd<sup>3</sup>) is to be imported to produce a fertile soil for lawn and plants. The irrigation system will cover an estimated 130,000 ft<sup>2</sup>. Approximately one acre of the Celilo Park will be included in the Treaty site for development of a drainfield, thus allowing on-site sewage disposal. Without this additional land, it would not be cost effective to provide a fish cleaning station and a restroom/shower building.

c. Alternative 3. Features for Alternative 3 are shown in table 2-10. A conceptual development plan was not produced. This alternative proposes development of river access adjacent to the boat ramp in the Celilo Park with limited land-based facilities. A boat ramp dock would be constructed upstream of the public ramp. An offshore groin in place for the public ramp would also protect the Tribal ramp. There is sufficient area behind the groin to construct a new boat ramp for Treaty fishing access. No camping is proposed. The Tribal fishers would use the facilities at the public park.

d. Alternative 4. Alternative 4 features are in table 2-11. A conceptual plan was not produced. This alternative is partial development of the legislated site and would provide mainly river access with limited land-based facilities. It covers 6.3 acres with camping.

e. Alternative 5. Features for Alternative 5 were developed for the Working Document and are shown in table 2-12 and on plate 11. This alternative proposes full development of the legislated site for Treaty fishing. Two groins are to be furnished for protection of the boat ramp and dock. A well will be drilled to provide potable water. Approximately one acre of the Celilo Public Park will be included in the Treaty fishing site for development of a drainfield, thus permitting on-site sewage disposal. Without this additional land, it would not be cost effective to provide a restroom building or fish cleaning station.

Table 2-8 -- *Alternative 1, Celilo Treaty Fishing Access Site (RM 201.5)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Groin .....	1
Boat ramp .....	1
Docks .....	800 ft <sup>2</sup>
<b>Land-Based Facilities</b>	
Well and pump house .....	1
Water system .....	800 ft
Net repair area .....	1
Fish drying shed .....	1
Fish cleaning station .....	1
Sewer system .....	1,600 lf
Vault toilets .....	1
Restroom/shower building .....	1
Camping sites .....	5
Parking (paved) .....	15
Dumpster pads .....	4
Planting .....	Several
Topsoil .....	4,100 yd <sup>3</sup>
Irrigation system .....	110,000 ft <sup>2</sup>
<b>Fixed Costs</b>	
Mob-Demob .....	LS
Outside lighting .....	1
Asphalt paving .....	5,900 yd <sup>2</sup>
Boundary fence .....	2,000 lf
Site cleanup .....	LS

Table 2-9 -- *Alternative 2, Celilo Treaty Fishing Access Site (RM 201.5)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Groin . . . . .	1
Boat ramp . . . . .	1
Docks . . . . .	800 ft <sup>2</sup>
<b>Land-Based Facilities</b>	
Well and pump house . . . . .	1
Water system . . . . .	800 ft
Net repair area . . . . .	1
Fish drying shed . . . . .	1
Fish cleaning station . . . . .	1
Sewer system . . . . .	1,600 lf
Vault toilets . . . . .	1
Restroom/shower building . . . . .	1
Camping sites . . . . .	5
Parking (paved) . . . . .	15
Dumpster pads . . . . .	4
Planting . . . . .	Several
Topsoil . . . . .	5,297 yd <sup>3</sup>
Irrigation system . . . . .	130,000 ft <sup>2</sup>
<b>Fixed Costs</b>	
Mob-Demob . . . . .	LS
Outside lighting . . . . .	1
Asphalt paving . . . . .	5,900 yd <sup>2</sup>
Boundary fence . . . . .	2,000 lf
Site cleanup . . . . .	LS

Table 2-10 -- *Alternative 3, Celilo Treaty Fishing Access Site, RM 201.4)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Boat ramp . . . . .	1
Docks . . . . .	800 ft <sup>2</sup>
<b>Land-Based Facilities</b>	
Net repair area . . . . .	1
Vault toilets . . . . .	1
Parking (paved) . . . . .	15
Dumpster pad . . . . .	1
Seeding . . . . .	2 ac
<b>Fixed Costs</b>	
Mob-Demob . . . . .	LS
Asphalt paving . . . . .	1,700 yd <sup>2</sup>
Boundary fence . . . . .	1,000 lf
Site cleanup . . . . .	LS

Table 2-11 -- *Alternative 4, Celilo Treaty Fishing Access Site (RM 201.5)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Groin .....	1
Boat ramp .....	1
Boat dock .....	800 ft <sup>2</sup>
<b>Land-Based Facilities</b>	
Net repair area .....	1
Vault toilets .....	1
Parking (paved) .....	15
Dumpster pads .....	1
Seeding .....	2 ac
<b>Fixed Costs</b>	
Mob-Demob .....	LS
Boundary fence .....	2,000 lf
Asphalt paving .....	2,800 yd <sup>2</sup>
Site cleanup .....	LS

Table 2-12 -- *Alternative 5, Celilo Treaty Fishing Access Site (RM 201.5).*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Groin .....	2
Boat ramp .....	1
Docks .....	800 ft <sup>2</sup>
<b>Land-Based Facilities</b>	
Well and pump house .....	1
Water system .....	800 ft
Net repair area .....	1
Fish drying shed .....	1
Fish cleaning station .....	1
Sewer system .....	1,600 lf
Restroom/shower building .....	1
Camping sites .....	5
Parking (paved) .....	21
<b>Fixed Costs</b>	
Mob-Demob .....	LS
Asphalt paving .....	3,330 yd <sup>2</sup>
Boundary fence .....	2,000 lf
Site cleanup .....	LS

#### 2.7.6 Maryhill Treaty Fishing Access Site.

The alternatives considered for this site are on an undeveloped parcel of land within the existing Maryhill State Park (Washington) near RM 208.2 on The Dalles pool. The site is immediately upstream (east) of the Sam Hill Memorial Bridge and encompasses approximately 9.9 acres. The site is on federal land leased to the Washington State Parks Commission. Through negotiations with the Commission, the Tribes, mainly the Yakama, obtained Commission approval to exclude the 9.9 acres from the lease to develop a Treaty fishing access site adjacent to the Maryhill Public Park. Therefore, the Corps has generated conceptual development plans for the 9.9 acres in consultation with the Washington State Parks Commission, the four Tribes and BIA.

a. Alternative 1. Features for Alternative 1 are shown in table 2-13 and on plate 12. This alternative proposes a full range of development for both river access and land-based facilities. A groin, boat ramp and dock will be developed with an estimated dredging of 500 yd<sup>3</sup>. A well will be drilled to provide potable water and irrigation for the lawn and plantings. Landscaping will be comparable to the level provided at the adjacent public park. The irrigation system will cover an estimated 51,000 ft<sup>2</sup>. A drainfield will be developed for on-site sewage disposal. Four camping sites with paved pullouts will be developed. Two shelters will be provided for group activities.

b. Alternative 2. Features for Alternative 2 are shown in table 2-14 and on plate 13. This alternative also proposes a full array of development for both river access and land-based facilities. A groin, boat ramp and dock will be developed with an estimated dredging of 2,000 yd<sup>3</sup>. A well is proposed to provide potable water and irrigation for the lawn and plantings. Landscaping will be comparable to the level provided at the adjacent public park. The irrigation system will cover an estimated 43,000 ft<sup>2</sup>. A drainfield will be developed for on-site sewage disposal. Four camping sites will be designated in the open area identified on the drawings. Two shelters will be provided for group activities.



Table 2-13 -- *Alternative 1, Maryhill Treaty Fishing Access Site (RM 208)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Groin .....	1
Boat ramp .....	1
Dock .....	1,600 ft <sup>2</sup>
Dredging .....	500 yd <sup>3</sup>
<b>Land-Based Facilities</b>	
Well and pump house .....	1
Water system .....	800 lf
Net repair area .....	1
Fish drying shed .....	1
Sewer system .....	1
Fish cleaning station .....	1
Restroom/shower building .....	1
Camping sites .....	4
New shelters .....	2
Parking areas (paved) .....	15
Dumpster pads .....	2
Planting .....	Several
Irrigation system .....	51,000 ft <sup>2</sup>
<b>Fixed Costs</b>	
Mob-Demob .....	LS
Outside lighting system .....	1
Asphalt paving .....	3,500 yd <sup>2</sup>
Boundary fence .....	2,800 lf
Site cleanup .....	LS

Table 2-14 -- *Alternative 2, Maryhill Treaty Fishing Access Site (RM 208)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Groin .....	1
Boat ramp .....	1
Dock .....	1,600 ft <sup>2</sup>
Dredging .....	2,000 yd <sup>3</sup>
<b>Land-Based Facilities</b>	
Well and pump house .....	1
Water system .....	800 lf
Net repair area .....	1
Fish drying shed .....	1
Sewer system .....	1
Fish cleaning station .....	1
Restroom/shower building .....	1
Camping sites .....	4
New shelters .....	2
Parking areas (paved) .....	15
Dumpster pads .....	2
Planting .....	Several
Irrigation system .....	43,000 ft <sup>2</sup>
<b>Fixed Costs</b>	
Mob-Demob .....	LS
Outside lighting system .....	1
Asphalt paving .....	4,780 yd <sup>2</sup>
Boundary fence .....	2,800 lf
Site cleanup .....	LS

### 2.7.7 Cliffs Treaty Fishing Access Site.

The shoreline between RM 214 and 215 on the Washington shore, Lake Celilo Pool, in Klickitat County were investigated for potential locations for Cliffs including the legislated site. Two alternatives were selected for further evaluation, both at or near RM 214. Alternative 1 is the legislated site and covers 8.5 acres. Alternative 2 is immediately downstream of the Alternative 1 and also covers 8.5 acres.

The legislated site (Alternative 1) is within Cliffs Park, administered by the Corps. Facilities at the park include a gravel boat ramp in disrepair, a gravel parking area and pit toilets.

a. Alternative 1. Features for Alternative 1 are shown in table 2-15 and on plate 14. Two groins are provided to protect the boat ramp and dock. A well/pumphouse and water system are included to provide potable water. Four camping sites will be provided. This alternative was developed for the Working Document.

b. Alternative 2. Proposed features for Alternative 2 are shown in table 2-16 and on plate 15. Two groins are provided to protect the boat ramp and dock. A well/pumphouse and water system are included to provide potable water. This alternative was also developed for the Working Document.

Table 2-15 -- *Alternative 1, Cliffs Treaty Fishing Access Site, (RM 214)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Groin .....	2
Boat ramp .....	1
Dock .....	800 ft <sup>2</sup>
<b>Land-Based Facilities</b>	
Well and pump house .....	1
Water system .....	800 lf
Net repair area .....	1
Fish drying shed .....	1
Sewage system .....	1
Fish cleaning station .....	1
Vault toilet .....	1
Camping sites .....	4
Parking (paved) .....	26
<b>Fixed Costs</b>	
Mob-Demob .....	LS
Outside lighting system .....	1
Asphalt paving .....	3,330 yd <sup>2</sup>
Boundary fence .....	2,300 lf
Site cleanup .....	LS

Table 2-16 -- *Alternative 2, Cliffs Treaty Fishing Access Site, (RM 214)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Groin .....	2
Boat ramp .....	1
Dock .....	800 ft <sup>2</sup>
<b>Land-Based Facilities</b>	
Well and pump house .....	1
Water system .....	800 lf
Vault toilet .....	1
Parking (paved) .....	26
<b>Fixed Costs</b>	
Mob-Demob .....	LS
Outside lighting system .....	1
Asphalt paving .....	7,220 yd <sup>2</sup>
Boundary fence .....	2,500 lf
Site cleanup .....	LS

#### 2.7.8 Rufus Treaty Fishing Access Site.

The shoreline between RM 212 and 213 on the Oregon shore, Lake Celilo Pool, in Sherman County were investigated for potential locations for Rufus, including the legislated site. Four alternatives were selected for further evaluation. Alternatives 1 and 2 are different levels of development for the legislated site at RM 212.4. Alternative 3 and 4 are downstream of the legislated site at RM 212 and RM 212.8, respectively.

a. Alternative 1. Alternative 1 features are in table 2-17 and on plate 16. The site is 2.5 acres. This alternative provides no river access, a paved pullout with two parking spaces and grass seeding in disturbed areas.

b. Alternative 2. Alternative 2 features are in table 2-18 and on plate 17. The site is 2.2 acres. This alternative provides no river access, a paved pullout with two parking spaces, plantings for nonvegetated areas; topsoil (530 yd<sup>3</sup>) will be imported to provide fertile soil.

c. Alternative 3. Features for Alternative 3 are shown in table 2-19 and on plate 18. This site is 15.4 acres. River access is provided with a groin, boat ramp and dock. Potable water will be furnished with a well, pumphouse and water system. Five informal camping areas will be provided. This alternative was developed for the Working Document.

d. Alternative 4. Alternative 4 features were developed for the Working Document and are in table 2-20 and on plate 19. The site is 4.8 acres. River access is provided with two groins, a boat ramp and dock. Potable water will not be provided.

Table 2-17 -- *Alternative 1, Rufus Treaty Fishing Access Site (RM 212.4)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
None	
<b>Land-Based Facilities</b>	
Vault toilets . . . . .	1
Parking areas (paved) . . . . .	2
Dumpster pads . . . . .	1
Seeding . . . . .	0.5 ac
<b>Fixed Costs</b>	
Mob-Demob . . . . .	LS
Asphalt paving . . . . .	500 yd <sup>2</sup>
Site cleanup . . . . .	LS

Table 2-18 -- *Alternative 2, Rufus Treaty Fishing Access Site (RM 212.4)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
None	
<b>Land-Based Facilities</b>	
Vault toilets . . . . .	1
Parking areas (paved) . . . . .	2
Dumpster pads . . . . .	1
Planting . . . . .	Several
Topsoil . . . . .	530 yd <sup>3</sup>
<b>Fixed Costs</b>	
Mob-Demob . . . . .	LS
Asphalt paving . . . . .	450 yd <sup>2</sup>
Site cleanup . . . . .	LS



Table 2-19 -- *Alternative 3, Rufus Treaty Fishing Access Site, (RM 212)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Groin . . . . .	1
Boat ramp . . . . .	1
Dock (new) . . . . .	800 ft <sup>2</sup>
<b>Land-Based Facilities</b>	
Well and pump house . . . . .	1
Water system . . . . .	1
Vault toilets . . . . .	1
Camping (informal) . . . . .	5
Parking areas (paved) . . . . .	26
<b>Fixed Costs</b>	
Mob-Demob . . . . .	LS
Asphalt paving . . . . .	6,220 yd <sup>2</sup>
Site cleanup . . . . .	LS

Table 2-20 -- *Alternative 4, Rufus Treaty Fishing Access Site (RM 212.8)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Groin . . . . .	2
Boat ramp . . . . .	1
Dock (new) . . . . .	800 ft <sup>2</sup>
<b>Land-Based Facilities</b>	
Vault toilets . . . . .	1
Parking areas (paved) . . . . .	26
<b>Fixed Costs</b>	
Mob-Demob . . . . .	LS
Asphalt paving . . . . .	3,110 yd <sup>2</sup>
Site cleanup . . . . .	LS

#### 2.7.9 Preachers Eddy Treaty Fishing Access Site.

The shoreline between RM 213 and 214 on the Oregon shore, Lake Celilo Pool, in Sherman County were investigated for potential site locations for Preachers Eddy including the legislated site. No alternate locations were identified for the site. Three alternatives which include a portion of the legislated site were selected for further evaluation. Each alternative demonstrates a different level of development for the same site at RM 213.5.

Development of the total legislated site would impact the Giles French Park. The legislated site includes the public boat ramps, parking area and vault toilets for the park. Each alternative will maintain public access to launch boats. The existing parking area and vault toilets would also remain as part of the public park system. The Corps, which launches a boat from Giles French Park to perform maintenance on the downstream face of the John Day Dam at RM 215.5, has a vested interest in maintaining public river access.

For Alternatives 1 and 2 the public boat ramp would be relocated upstream to provide an area for a Treaty fishing boat ramp within the proposed boundary of the site. This would also provide separate Treaty fishing and public recreation facilities. Relocation will require construction of two new boat ramps, one for the Treaty fishing access site and one for the public park.

a. Alternative 1. Features for Alternative 1 are shown in table 2-21 and on plate 20. The site is 5 acres. This alternative primarily provides only river access for Treaty fishing and includes rehabilitation of the existing groin, two new boat ramps and 3,200 ft<sup>2</sup> of dock. The boat ramps will be separated by docks. A hand rail will be installed in the middle of the docks with signing to identify exclusive Treaty fishing use. A new well will be drilled and a pump installed to provide irrigation for landscaped areas. The irrigation system will cover 43,000 ft<sup>2</sup>. Top soil and mulch (1,600 yd<sup>3</sup>) will be imported to mix with native soil to provide fertile soil for the lawn and plantings.

b. Alternative 2. Features for Alternative 2 are shown in table 2-22 and on plate 21. The site is 4.2 acres. This alternative also primarily provides only river access for Treaty fishing and includes rehabilitation of the existing groin, two new boat ramps and 3,200 ft<sup>2</sup> of dock. The boat ramps will be separated by docks. A hand rail will be installed in the middle of the docks with signing to identify exclusive Treaty fishing use. A new well will be drilled and a pump installed to provided irrigation for landscaped areas. The irrigation system will cover 55,000 ft<sup>2</sup>. Top soil (2,307 yd<sup>3</sup>) will be imported to mix with native soil to provide fertile soil for the lawn and plantings.

c. Alternative 3. Alternative 3 was developed for the Working Document with proposed features in table 2-23 and on plate 22. The site is 3.7 acres. This alternative essentially provides only river and includes a new groin, a new boat ramp and 800 ft<sup>2</sup> of dock. The quantity of rock for the groin is larger due to the increased length of groin required and the water depth near shore at the end of the groin which approaches 40 feet.

Table 2-21 -- *Alternative 1, Preachers Eddy Treaty Fishing Access Site (RM 213.5)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Groin extension .....	200 lf
Boat ramp .....	2
Docks .....	1,600 ft <sup>2</sup>
<b>Land-Based Facilities</b>	
Well and pump house .....	1
Vault toilet .....	1
Parking areas (paved) .....	12
Dumpster pads .....	2
Planting .....	Several
Topsoil .....	1,600 yd <sup>3</sup>
Irrigations system .....	43,000 ft <sup>2</sup>
<b>Fixed Costs</b>	
Mob-Demob .....	LS
Outside lighting .....	LS
Boundary fence .....	1,200 lf
Asphalt paving .....	4,260 yd <sup>2</sup>
Site cleanup .....	LS

Table 2-22 -- *Alternative 2, Preachers Eddy Treaty Fishing Access Site (RM 213.5)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Groin extension .....	200 lf
Boat ramp .....	2
Docks .....	3,200 ft <sup>2</sup>
<b>Land-Based Facilities</b>	
Vault toilet .....	2
Parking areas (paved) .....	12
Dumpster pads .....	2
Planting .....	Several
Topsoil .....	2,307 yd <sup>3</sup>
Irrigations system .....	55,000 ft <sup>2</sup>
<b>Fixed Costs</b>	
Mob-Demob .....	LS
Boundary fence .....	1,200 lf
Asphalt paving .....	4,260 yd <sup>2</sup>
Site cleanup .....	LS

Table 2-23 -- *Alternative 3, Preachers Eddy Treaty Fishing Access Site, (RM 213.5)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Groin . . . . .	1
Boat ramp . . . . .	1
Docks . . . . .	800 ft <sup>2</sup>
<b>Land-Based Facilities</b>	
Dumpster pads . . . . .	2
Parking areas (paved) . . . . .	26
Vault toilet . . . . .	2
<b>Fixed Costs</b>	
Mob-Demob . . . . .	LS
Boundary fence . . . . .	2,200 lf
Asphalt paving . . . . .	5,000 yd <sup>2</sup>
Site cleanup . . . . .	LS

2.7.10 North Shore Treaty Fishing Access Site.

An embayment of the Columbia River near RM 215.9 on the John Day Pool, Washington shore in Klickitat County, was investigated for potential locations for North Shore, including the legislated site. Groundwater in the area is believed to be contaminated and in short supply. Alternatives 1, 2, and 4 are basically on the same five acres of land adjacent to Railroad Island Park administered by the Corps. The legislated site, Alternative 3, has no vehicle access. Establishing access would result in extensive environmental impacts and high construction costs.

a. Alternative 1. Features for Alternative 1 are shown in table 2-24 and on plate 23. Site acreage is 5.5. This alternative basically provides only river access for Treaty fishing and includes a new boat ramp and 800 ft<sup>2</sup> of dock. The new boat ramp for Tribal fishers will be constructed adjacent to (west of) the existing boat ramp for Railroad Island Park. The boat ramps will be separated by docks. A hand rail will be installed in the middle of the docks with signing to identify exclusive Treaty fishing use. A portion of the existing parking area for Railroad Island Park will be transferred with the Treaty fishing access site. Four gravel parking lots will be provided along the access road near the middle of the site for exclusive Tribal use.

b. Alternative 2. Proposed features for Alternative 2 are shown in table 2-25 and on plate 24. The site acreage is 5. This alternative provides river access for Treaty fishing and includes a new boat ramp and 800 ft<sup>2</sup> of dock. Two camping areas are to be furnished and the access and parking lot (four parking areas) will be paved. Top soil (4,000 yd<sup>3</sup>) will be imported to ensure fertile soil for plantings.

c. Alternative 3. Features for Alternative 3 are shown in table 2-26 and on plate 25. The site is 7.5 acres. This alternative is on the legislated site and has no vehicular access. No conventional river access for Treaty fishing has been included in this alternative. Two informal camping areas will be provided with a vault toilet. This alternative was developed for the Working Document.

Table 2-24 -- *Alternative 1, North Shore Treaty Fishing Access Site (RM 215.9)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Boat ramp .....	1
Dock .....	1,600 ft <sup>2</sup>
<b>Land-Based Facilities</b>	
Vault toilet .....	1
Parking areas (gravel) .....	4
Dumpster pads .....	1
Seeding .....	LS
<b>Fixed Costs</b>	
Mob-Demob .....	LS
Gravel surfacing .....	550 yd <sup>2</sup>
Boundary fence .....	1,100 lf
Site cleanup .....	LS

Table 2-25 -- *Alternative 2, North Shore Treaty Fishing Access Site (RM 215.9)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Boat ramp .....	1
Dock .....	800 ft <sup>2</sup>
Rock excavation .....	1,000 yd <sup>3</sup>
<b>Land-Based Facilities</b>	
Vault toilet .....	1
Camping sites .....	2
Parking areas (paved) .....	4
Dumpster pads .....	1
Planting .....	Several
Topsoil .....	4,000 yd <sup>3</sup>
<b>Fixed Costs</b>	
Mob-Demob .....	LS
Asphalt paving .....	1,660 yd <sup>2</sup>
Boundary fence .....	1,100 lf
Site cleanup .....	LS



Table 2-26 -- *Alternative 3, North Shore Treaty Fishing Access Site (RM 215.9)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
None	
<b>Land-Based Facilities</b>	
Vault toilet . . . . .	1
Camping (informal) . . . . .	2
<b>Fixed Costs</b>	
Mob-Demob . . . . .	LS
Site cleanup . . . . .	LS
Boundary fence . . . . .	1,500 lf

d. Alternative 4. Proposed features for Alternative 4 are shown in table 2-27 and on plate 26. Site acreage is 4.8. This alternative will have river access for Treaty fishing. The new boat ramp for Tribal fishers will be constructed adjacent to (east of) the existing boat ramp for Railroad Island Park. The boat ramps will be separated by docks. A hand rail will be installed in the middle of the docks with signing to identify exclusive Treaty fishing use. Two informal camping areas will be provided. Seven gravel parking lots will be furnished near the middle of the site with a gravel access road. This alternative was developed for the Working Document.

Table 2-27 -- *Alternative 4, North Shore Treaty Fishing Access Site, (RM 215.9)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Boat ramp . . . . .	1
Dock . . . . .	1,600 ft <sup>2</sup>
<b>Land-Based Facilities</b>	
Vault toilet . . . . .	1
Camping (informal) . . . . .	2
Parking areas (gravel) . . . . .	6
<b>Fixed Costs</b>	
Mob-Demob . . . . .	LS
Gravel surfacing . . . . .	1,700 yd <sup>2</sup>
Boundary fence . . . . .	1,100 lf
Site cleanup . . . . .	LS

#### 2.7.11 LePage Treaty Fishing Access Site.

This site is within LePage Park, a Corps' administered public park, at the confluence of the John Day and Columbia Rivers near Columbia River RM 217.8 on the John Day Pool, Oregon shore in Sherman County. The Oregon shoreline of the Columbia and John Day Rivers in the vicinity of the legislated site were investigated for possible alternative locations of a Treaty fishing access site, but no feasible site was found.

Each of the three alternatives being considered for a portion of the legislated site proposes a different level of development. The northern segment of the legislated site is within the interstate highway (I-84) right-of-way.

a. Alternative 1. Proposed features for Alternative 1 are shown in table 2-28 and on plate 27. The site is 1.9 acres. This alternative will establish river access and camping on or adjacent to the legislated site. A new boat ramp will be constructed adjacent to the existing boat ramp for LePage Park. A portion of the existing parking area for LePage Park has been included in this alternative to provide camping facilities near the new Tribal boat ramp. Due to the small acreage designated for this alternative, it will not be possible to furnish other land-based facilities such as a restroom/shower building, fish drying shed, and fish cleaning station.

b. Alternative 2. Features for Alternative 2 are shown in table 2-29 and on plate 28. Site acreage is 2.7. This alternative also provides a boat ramp adjacent to the existing LePage Park boat ramp. However, many of the land-based facilities will be on a bench to the west that overlooks the LePage Park. There is sufficient area on the bench to provide a full range of land-based facilities. A restroom/shower building is not included because the soils on the bench are shallow or nonexistent and a drainfield cannot be developed. This alternative provides more separation between Tribal fishers and the recreational public than Alternative 1, but the Tribal fishers who camp would be farther than they desire from the Tribal boat ramp.

c. Alternative 3. Features for Alternative 3 are shown in table 2-30 and on plate 29. Acreage for this site is 2.8 acres. This alternative also provides a boat ramp adjacent to the existing LePage Park boat ramp. As with Alternative 2, many of the land-based facilities will be on a bench to the west that overlooks the LePage Park. There is sufficient area on the bench to provide a full range of land-based facilities. A restroom/shower building is not included because the soils on the bench in this location are shallow or nonexistent and a drainfield can not be installed. Further, potable water or landscaping of the upland area will not be included. This alternative provides more separation between Tribal fishers and the recreational public than Alternative 1, but the Tribal fisher are farther than they desire from the Tribal boat ramp. This alternative was developed for the Working Document.

Table 2-28 -- *Alternative 1, LePage Treaty Fishing Access Site (RM 217.8)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Boat ramp .....	1
Dock .....	1,200 ft <sup>2</sup>
<b>Land-Based Facilities</b>	
Water system .....	1,100 lf
Net repair area .....	1
Vault toilets .....	2
Camping sites .....	5
Parking areas (paved) .....	15
Dumpster pads .....	2
Planting .....	Several
Topsoil .....	1,400 yd <sup>3</sup>
Irrigation system .....	26,000 ft <sup>2</sup>
<b>Fixed Costs</b>	
Mob-Demob .....	LS
Outside lighting system .....	1
Asphalt paving .....	1,700 yd <sup>2</sup>
Gravel .....	7,000 yd <sup>2</sup>
Boundary fence .....	1,800 lf
Site cleanup .....	LS

Table 2-29 -- *Alternative 2, LePage Treaty Fishing Access Site (RM 217.8)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Boat ramp . . . . .	1
Dock . . . . .	1,200 ft <sup>2</sup>
Dredging in place fill . . . . .	4,400 yd <sup>3</sup>
<b>Land-Based Facilities</b>	
Well and pump house . . . . .	1
Water system . . . . .	1,600 lf
Net repair area . . . . .	1
Fish drying shed . . . . .	1
Vault toilets . . . . .	2
Camping sites . . . . .	5
New shelters . . . . .	1
Parking areas (paved) . . . . .	15
Dumpster pads . . . . .	2
Planting . . . . .	Several
Topsoil . . . . .	2,200 yd <sup>3</sup>
Irrigation system . . . . .	60,000 ft <sup>2</sup>
<b>Fixed Costs</b>	
Mob-Demob . . . . .	LS
Outside lighting system . . . . .	1
Asphalt paving . . . . .	4,500 yd <sup>2</sup>
Boundary fence . . . . .	1,000 lf
Site cleanup . . . . .	LS

Table 2-30 -- *Alternative 3, LePage Treaty Fishing Access Site (RM 217.8)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Boat ramp .....	1
Dock .....	1,200 ft <sup>2</sup>
Dredging in place fill .....	4,400 yd <sup>3</sup>
<b>Land-Based Facilities</b>	
Net repair area .....	1
Fish drying shed .....	1
Fish cleaning station .....	1
Vault toilets .....	1
Parking areas (gravel) .....	23
<b>Fixed Costs</b>	
Mob-Demob .....	LS
Asphalt paving .....	1,700 yd <sup>2</sup>
Gravel surfacing .....	4,500 yd <sup>2</sup>
Boundary fence .....	1,000 lf
Site cleanup .....	LS

#### 2.7.12 Goodnoe Treaty Fishing Access Site.

A majority of the legislated site is within the Burlington Northern Railroad right-of-way. Consequently, an alternative site location was evaluated upstream of the legislated site. Water depths immediately offshore in the area are too shallow to provide boat access; therefore, a boat ramp was not considered in the three alternative levels of development.

a. Alternative 1. Features for Alternative 1 are shown in table 2-31 and on plate 30. For this alternative, only minor improvements are considered for the 5-acre site. There are no plans to improve the existing road into the site; however, a small gravel parking area and vault toilet will be provided.

b. Alternative 2. Features for Alternative 2 are shown in table 2-32 and on plate 31. This site is 3.3 acres. The development plan includes gravel surfacing of the access road into the site and a small parking area on-site. A vault toilet will also be furnished. Informal camping and a dumpster pad are included in this alternative only.

c. Alternative 3. Features for Alternative 3 are shown in table 2-33 and on plate 32. The development plan includes gravel surfacing of the access road into the 2.8 acre site. This alternative was developed for the Working Document.



Table 2-31 -- *Alternative 1, Goodnoe Treaty Fishing Access Site (RM 225.4)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
None	
<b>Land-Based Facilities</b>	
Vault toilets . . . . .	1
Parking areas (gravel) . . . . .	2
<b>Fixed Costs</b>	
Mob-Demob . . . . .	LS
Gravel surface . . . . .	570 yd <sup>2</sup>
Boundary fence . . . . .	700 lf
Site cleanup . . . . .	LS

Table 2-32 -- *Alternative 2, Goodnoe Treaty Fishing Access Site (RM 225.4)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
None	
<b>Land-Based Facilities</b>	
Vault toilets . . . . .	1
Informal camping sites . . . . .	3
Parking areas (gravel) . . . . .	2
Dumpster pads . . . . .	1
<b>Fixed Costs</b>	
Mob-Demob . . . . .	LS
Gravel surface . . . . .	10,600 yd <sup>2</sup>
Boundary fence . . . . .	700 lf
Site cleanup . . . . .	LS

Table 2-33 -- *Alternative 3, Goodnoe Treaty Fishing Access Site (RM 225.4)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
None	
<b>Land-Based Facilities</b>	
Vault toilets . . . . .	1
<b>Fixed Costs</b>	
Mob-Demob . . . . .	LS
Gravel surface . . . . .	10,600 yd <sup>2</sup>
Boundary fence . . . . .	700 lf
Site cleanup . . . . .	LS

### 2.7.13 Pasture Point Treaty Fishing Access Site.

This legislated site has the potential to accommodate a full range of development; however, a railroad crossing is required to access the site. The crossing will also serve Goodnoe and Rock Creek. The soils are too shallow to provide proper treatment of effluent from a septic/drainfield system; therefore, only a vault toilet system is considered for the alternatives. Three different levels of development were evaluated for the legislated site.

a. Alternative 1. Features for Alternative 1 are shown in table 2-34 and on plate 33. This alternative provides the full range of facilities for Treaty fishing access. A groin is to be provided on the upstream side of the boat ramp. Dredging of approximately 5,000 yd<sup>3</sup> of material is anticipated to provide river access. A well will be drilled and a water distribution system with an electrical pump installed to provide potable water. Twelve camp areas are to be developed. The access road(s) in or adjacent to the camping area and the parking lot will be paved. The remainder of the access road(s) will be graveled. An estimated transfer of 53.4 acres of federal land is recommended and has been identified on the drawings.

b. Alternative 2. Features for Alternative 2 are shown in table 2-35 and on plate 34. The site is 12.5 acres. This alternative also provides the full range of facilities for Treaty fishing access but fewer land-based facilities have been included than for Alternative 1. The anticipated dredging for this alternative is 4,500 yd<sup>3</sup> for river access. A well will be drilled and a manual water pump installed to provide potable water. Five camp areas are to be developed. The access road(s) in or adjacent to the camping area and the parking lot will be paved. The remainder of the access road(s) will be gravel.

c. Alternative 3. Features for Alternative 3 are shown in table 2-36 and on plate 35. Site acreage is 16.0. This alternative provides river access and land-based facilities but with fewer features than the previous two alternatives. No dredging has been included. A well will be drilled and a manual water pump installed to provide potable water. Five camp areas are to be developed. The access road(s) in or adjacent to the camping area and the parking lot will be paved. This alternative was developed for the Working Document.

Table 2-34 -- *Alternative 1, Pasture Point Treaty Fishing Access Site (RM 226.5)*

**River Access**

Groin	1
Boat ramp	1
Dock	800 ft <sup>2</sup>
Dredging	5,000 yd <sup>3</sup>

**Land-Based Facilities**

Well and pump house	1
Water system	1,300 lf
Net repair area	1
Fish drying shed	1
Vault toilets	2
Camping sites	12
New shelters	1
Parking areas (paved)	8
Dumpster pads	1
Seeding	4 ac

**Fixed Costs**

Mob-Demob	LS
Outside lighting system	1
Asphalt paving	7,300 yd <sup>2</sup>
Gravel surfacing	9,000 yd <sup>2</sup>
Railroad crossing	1
Boundary fence	1,900 lf
Site cleanup	LS

Table 2-35 -- *Alternative 2, Pasture Point Treaty Fishing Access Site (RM 226.5)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Boat ramp . . . . .	1
Dock . . . . .	800 ft <sup>2</sup>
Dredging . . . . .	4,500 yd <sup>3</sup>
<b>Land-Based Facilities</b>	
Well with manual pump . . . . .	1
Net repair area . . . . .	1
Fish drying shed . . . . .	1
Vault toilets . . . . .	2
Camping sites . . . . .	5
New shelters . . . . .	1
Parking areas (paved) . . . . .	8
Dumpster pads . . . . .	1
Planting . . . . .	Several
Topsoil . . . . .	4,400 yd <sup>3</sup>
<b>Fixed Costs</b>	
Mob-Demob . . . . .	LS
Asphalt paving . . . . .	2,800 yd <sup>2</sup>
Gravel surfacing . . . . .	6,700 yd <sup>2</sup>
Railroad crossing . . . . .	1
Boundary fence . . . . .	1,000 lf
Site cleanup . . . . .	LS

Table 2-36 -- *Alternative 3 Pasture Point Treaty Fishing Access Site (RM 226.5)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Boat ramp . . . . .	1
Dock . . . . .	800 ft <sup>2</sup>
<b>Land-Based Facilities</b>	
Well with manual pump . . . . .	1
Net repair area . . . . .	1
Fish drying shed . . . . .	1
Vault toilets . . . . .	2
Camping sites . . . . .	5
Parking areas (paved) . . . . .	26
<b>Fixed Costs</b>	
Mob-Demob . . . . .	LS
Asphalt paving . . . . .	3,330 yd <sup>2</sup>
Railroad crossing . . . . .	1
Boundary fence . . . . .	2,300 lf
Site cleanup . . . . .	LS



#### 2.7.14 Rock Creek Treaty Fishing Access Site.

The legislated site is very narrow and has restricted development potential. Federal lands to the west have been included to provide additional development. The nearshore water is shallow, and the nearshore river bottom has a 3 to 6 percent slope. Shore lands are also subject to periodic flooding when the pool is at maximum elevation. None of these shore conditions are conducive to construction of a conventional boat ramp; therefore, a boat ramp has not been considered. Three different levels of development were evaluated for the legislated site and only provide minimum land-based facilities due to site conditions.

a. Alternative 1. Proposed features for Alternative 1 are shown in table 2-37 and on plate 36. The site is 5.0 acres. Only minimum land-based facilities are to be furnished at Rock Creek. This will include a vault toilet and graveling of the parking lot.

b. Alternative 2. Features for Alternative 2 are shown in table 2-38 and on plate 37. This alternative provides 4 acres for transfer. Three informal camping sites, a vault toilet and dumpster pad are included, as well as gravel surfacing for the access road between Pasture Point and Rock Creek and the parking lot.

c. Alternative 3. Features for Alternative 3 are shown in table 2-39 and on plate 38. This alternative provides approximately 5.7 acres for transfer. Three informal camping sites, a vault toilet, and a gravel surface for the access road between Pasture Point and Rock Creek and the parking lot are included. This alternative was developed for the Working Document.

Table 2-37 -- *Alternative 1, Rock Creek Treaty Fishing Access Site (RM 227.5)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
None	
<b>Land-Based Facilities</b>	
Vault toilets . . . . .	1
Parking areas (gravel) . . . . .	2
<b>Fixed Costs</b>	
Mob-Demob . . . . .	LS
Gravel surface . . . . .	600 yd <sup>2</sup>
Boundary fence . . . . .	800 lf
Site cleanup . . . . .	LS

Table 2-38 -- *Alternative 2, Rock Creek Treaty Fishing Access Site (RM 227.5)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
None	
<b>Land-Based Facilities</b>	
Vault toilets . . . . .	1
Informal camping sites . . . . .	3
Dumpster pads . . . . .	1
<b>Fixed Costs</b>	
Mob-Demob . . . . .	LS
Gravel surface . . . . .	5,700 yd <sup>2</sup>
Site cleanup . . . . .	LS

Table 2-39 -- *Alternative 3, Rock Creek Treaty Fishing Access Site (RM 227.5)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
None	
<b>Land-Based Facilities</b>	
Vault toilets . . . . .	1
Camping (informal) . . . . .	3
<b>Fixed Costs</b>	
Mob-Demob . . . . .	LS
Gravel surface . . . . .	5,700 yd <sup>2</sup>
Boundary fence . . . . .	800 lf
Site cleanup . . . . .	LS

#### 2.7.15 Sundale Treaty Fishing Access Site.

This legislated site includes a Corps' administrated public park, Sundale, and is currently used by both the public and Tribal fishers. Alternative locations on federal lands were investigated from the legislated site downstream to RM 235. However, no sites were identified that were suitable for Treaty fishing access site development. Three levels of development (alternatives) were considered for the appropriate portion of the legislated site and adjacent federal property.

The facilities at Sundale Park include a picnic area, swim beach, boat ramp, parking lot and vault toilet. The asphalt-surfaced parking lot can accommodate five vehicles with boat trailers.

Because groundwater in the Sundale Park area is at or near the surface, these site conditions are not conducive for a drainfield to process on-site sewage. Therefore, only a vault toilet system will be considered.

a. Alternative 1. Features for Alternative 1 are shown in table 2-40 and on plate 39. Acreage for this site is 5.3. This alternative will include the full range of facilities for Treaty fishing access. The prominent items are discussed. A new boat ramp and dock are to be provided. Approximately 740 yd<sup>3</sup> of dredging is anticipated to provide sufficient depth for boat access to and from the ramp. A new well will be drilled and a pump and water distribution system installed to furnish potable water. Three camping areas and one vault toilet are to be furnished. Some landscaping of the site will be provided. An overlay of the existing asphalt surface is also included with a turnaround near the entrance to the site.

b. Alternative 2. Features for Alternative 2 are shown in table 2-41 and on plate 40. The site is 5.3 acres. This alternative will include the full range of facilities for treaty fishing. A new boat ramp and dock are to be provided. Approximately 2,000 yd<sup>3</sup> of dredging is anticipated to provide sufficient depth for boat access to and from the ramp. A new well will be drilled and a pump and water distribution system installed to furnish potable water. Six camping sites and one vault toilet are to be furnished. Some landscaping will be provided. Topsoil (100 yd<sup>3</sup>) is to be imported to produce a fertile soil for plants. An overlay of the existing asphalt surface is included.

c. Alternative 3. Features for Alternative 3 are shown in table 2-42 and on plate 41. This alternative will also include the full range of facilities. The prominent features are discussed. A new boat ramp and dock are to be provided. Approximately 2,000 yd<sup>3</sup> of dredging is anticipated to provide adequate depth for boat access. A new well will be drilled and a pump and water distribution system installed to furnish potable water. Six camping sites and one vault toilet are to be furnished. An overlay of the existing asphalt surface is included. This alternative was developed for the Working Document.

Table 2-40 -- *Alternative 1, Sundale Treaty Fishing Access Site (RM 236.2)*

River Access	
Boat ramp	1
Dock	800 ft <sup>2</sup>
Dredging	740 yd <sup>3</sup>
<b>Land-Based Facilities</b>	
Well and new pump house	1
Water system	500 lf
Net repair area	1
Fish drying shed	1
Vault toilets	1
Camping sites	3
Parking areas (paved)	8
Dumpster pads	1
Planting	Several

**Fixed Costs**

Mob-Demob	LS
Outside lighting system	1
Asphalt overlay	3,730 yd <sup>2</sup>
Boundary fence	1,700 lf
Site cleanup	LS

Table 2-41 -- *Alternative 2, Sundale Treaty Fishing Access Site (RM 236.2)***River Access**

Boat ramp	1
Dock	800 ft <sup>2</sup>
Dredging	2,000 yd <sup>3</sup>

**Land-Based Facilities**

Well and new pump house	1
Water system	1,000 lf
Net repair area	1
Fish drying shed	1
Vault toilets	1
Camping sites	6
Parking areas (paved)	8
Dumpster pads	1
Planting	Several
Topsoil	100 yd <sup>3</sup>

**Fixed Costs**

Mob-Demob	LS
Outside lighting system	1
Asphalt overlay	3,100 yd <sup>2</sup>
Boundary fence	1,700 lf
Site cleanup	LS

Table 2-42 -- *Alternative 3 Sundale Treaty Fishing Access Site (RM 236.2)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Boat ramp .....	1
Dock .....	800 ft <sup>2</sup>
Dredging .....	2,000 yd <sup>3</sup>
<b>Land-Based Facilities</b>	
Well and new pump house .....	1
Water system .....	1,000 lf
Net repair area .....	1
Fish Cleaning Station .....	1
Vault toilets .....	1
Camping sites .....	6
Parking areas (existing) .....	8
<b>Fixed Costs</b>	
Mob-Demob .....	LS
Boundary fence .....	1,700 lf
Site cleanup .....	LS

#### 2.7.16 Roosevelt Treaty Fishing Access Site.

The legislated site is within the existing Roosevelt Park administered by the Corps and is primarily composed of rock outcrop with high, near vertical slopes adjacent to the river. Development of the legislated site was not considered cost effective; other sites were investigated. Undeveloped federal land upstream of the legislated site and adjacent to the existing park has been selected for development. An abandoned ferry landing and groin will be used. Four different levels of development are investigated. Shallow soils prevent development of a conventional drainfield for disposal of on-site sewage. The drainfield for the existing park is failing, and the restroom is permanently closed.

a. Alternative 1. Features for Alternative 1 are shown in table 2-43 and on plate 42. This 5-acre alternative site will provide Treaty fishing access and the full range of facilities including a new boat ramp and dock. A well will be drilled to provide potable water and irrigation. Landscaping will be comparable to that provided at the adjacent public park. Topsoil (1,860 yd<sup>3</sup>) is to be imported to produce a fertile soil for lawn and plants. The irrigation system will cover an estimated 52,250 ft<sup>2</sup>. Eight camping sites, 3 vault toilets and 8 parking spaces are to be furnished. The parking lot and access road will be paved.

b. Alternative 2. Features for Alternative 2 are shown in table 2-44 and on plate 43. There are 5.3 acres designated. This alternative will include the full range of facilities. A new boat ramp and dock are to be provided. A well will be drilled to provide potable water and irrigation. Landscaping will be comparable to that provided at the adjacent public park. Topsoil (4,792 yd<sup>3</sup>) is to be imported to produce a fertile soil for lawn and plants. The



irrigation system will cover an estimated 43,560 ft<sup>2</sup>. Eight camping sites, 3 vault toilets and 8 parking spaces are to be furnished. The parking lot and access road will be paved.

c. Alternative 3. Features for Alternative 3 are shown in table 2-45. A conceptual development plan was not generated. The site will cover 5.3 acres. A new boat ramp and dock are to be provided. A well will be drilled to provide potable water and irrigation for the lawn and plantings. Landscaping will be comparable to that provided at the adjacent public park. Topsoil (4,792 yd<sup>3</sup>) is to be imported to produce a fertile soil for lawn and plants. The irrigation system will cover an estimated 43,560 sf. Eight camping sites, a restroom/shower building, a fish cleaning station and eight parking areas are to be furnished. A pressure sewage line (6,000 feet) to the city of Roosevelt sewage treatment facility for processing on-site sewage is included. The parking lot and access road will be paved.

d. Alternative 4. Features for Alternative 4 are shown in table 2-46 and on plate 44. Acreage for this site is 5.3. This alternative, developed for the Working Document, will also include the full range of facilities for Treaty fishing access. A new boat ramp and dock are to be provided. A well will be drilled to provide potable water. Eight camping sites, a vault toilet, a fish cleaning station, and 26 parking areas are to be furnished. The parking lot and access road will be paved.

Table 2-43 -- *Alternative 1, Roosevelt Treaty Fishing Access Site (RM 241)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Boat ramp . . . . .	1
Docks . . . . .	800 sf
<b>Land-Based Facilities</b>	
Well and pump house . . . . .	1
Water system . . . . .	500 lf
Net repair area . . . . .	1
Fish drying shed . . . . .	1
Vault toilets . . . . .	3
Camping sites . . . . .	8
Parking areas (paved) . . . . .	8
Dumpster pads . . . . .	2
Planting . . . . .	Several
Topsoil . . . . .	1,860 yd <sup>3</sup>
Irrigation system . . . . .	50,250 ft <sup>2</sup>
<b>Fixed Costs</b>	
Mob-Demob . . . . .	LS
Outside lighting system . . . . .	2,000 lf
Asphalt paving . . . . .	2,430 yd <sup>2</sup>
Boundary fence . . . . .	1,100 lf
Site cleanup . . . . .	LS

Table 2-44 -- *Alternative 2, Roosevelt Treaty Fishing Access Site (RM 241)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Boat ramp . . . . .	1
Docks . . . . .	800 ft <sup>2</sup>
<b>Land-Based Facilities</b>	
Well and pump house . . . . .	1
Water system . . . . .	600 lf
Net repair area . . . . .	1
Fish drying shed . . . . .	1
Vault toilets . . . . .	3
Camping sites . . . . .	8
Parking areas (paved) . . . . .	8
Dumpster pads . . . . .	2
Planting . . . . .	Several
Topsoil . . . . .	4,792 yd <sup>3</sup>
Irrigation system . . . . .	43,560 ft <sup>2</sup>
<b>Fixed Costs</b>	
Mob-Demob . . . . .	LS
Outside lighting system . . . . .	2,000 lf
Asphalt paving . . . . .	2,890 yd <sup>2</sup>
Boundary fence . . . . .	1,100 lf
Site cleanup . . . . .	LS

Table 2-45 -- *Alternative 3, Roosevelt Treaty Fishing Access Site (RM 241)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Boat ramp .....	1
Docks .....	800 ft <sup>2</sup>
<b>Land-Based Facilities</b>	
Well and pump house .....	1
Water system .....	600 lf
Net repair area .....	1
Fish drying shed .....	1
Restroom/shower building .....	1
Pressure sewer line (4") (\$300 K) .....	6,000 lf
Fish cleaning station .....	1
Camping sites .....	8
Parking areas (paved) .....	8
Dumpster pads .....	2
Planting .....	Several
Topsoil .....	4,792 yd <sup>3</sup>
Irrigation system .....	43,560 ft <sup>2</sup>
<b>Fixed Costs</b>	
Mob-Demob .....	LS
Outside lighting system .....	2,000 lf
Asphalt paving .....	3,000 yd <sup>2</sup>
Boundary fence .....	1,100 lf
Site cleanup .....	LS

Table 2-46 -- *Alternative 4, Roosevelt Treaty Fishing Access Site (RM 241)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Boat ramp .....	1
Docks .....	800 ft <sup>2</sup>
<b>Land-Based Facilities</b>	
Well and pump house .....	1
Water system .....	600 lf
Net repair area .....	1
Fish drying shed .....	1
Fish cleaning station .....	1
Vault toilets .....	1
Camping (informal) .....	8
Parking areas (paved) .....	26
<b>Fixed Costs</b>	
Mob-Demob .....	LS
Asphalt paving .....	3,000 yd <sup>2</sup>
Boundary fence .....	1,100 lf
Site cleanup .....	LS

### 2.7.17 Pine Creek Treaty Fishing Access Site.

This narrow site does not provide sufficient area for full development. Regardless of the level of development a railroad crossing with drop arms will be required, as well as a new asphalt access road is also to be constructed. Four levels of development were considered.

a. Alternative 1. Features for Alternative 1 are shown in table 2-47 and on plate 45. This 6.9-acre alternative site will predominately provide river access including a groin, boat ramp and dock with minimum land-based facilities. These facilities include a vault toilet, 10 parking areas, and a dumpster pad.

b. Alternative 2. Proposed features for Alternative 2 are shown in table 2-48 and on plate 46. This 7-acre alternative site will also provide predominately river access including a groin, boat ramp and dock. A vault toilet, two informal camping areas, two parking areas and a dumpster pad will be furnished. The access road and parking areas are to be paved.

c. Alternative 3. Features for Alternative 3 are shown in table 2-49. A conceptual plan of development was not generated for this 7.3 acre site. This alternative will provide no river access but does include limited land-based facilities, including a vault toilet, two informal camping areas, paved parking, and dumpster pad.

d. Alternative 4. Features for Alternative 4 are shown in table 2-50 and on plate 47. This 4.6-acre alternative site will provide no river access, but does include limited land-based facilities, including a vault toilet and two informal camping areas. This alternative was developed for the Working Document.

Table 2-47 -- *Alternative 1, Pine Creek Treaty Fishing Access Site (RM 250.2)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Groin . . . . .	1
Boat ramp . . . . .	1
Dock . . . . .	1,200 ft <sup>2</sup>
<b>Land-Based Facilities</b>	
Vault toilets . . . . .	1
Parking areas (paved) . . . . .	10
Dumpster pads . . . . .	1
Seeding . . . . .	4 ac
<b>Fixed Costs</b>	
Mob-Demob . . . . .	LS
Asphalt paving . . . . .	6,100 yd <sup>2</sup>
Railroad crossing . . . . .	1
Boundary fence . . . . .	1,600 lf
Site cleanup . . . . .	LS

Table 2-48 -- *Alternative 2, Pine Creek Treaty Fishing Access Site (RM 250.2)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Groin .....	1
Boat ramp .....	1
Dock .....	1,200 ft <sup>2</sup>
<b>Land-Based Facilities</b>	
Vault toilets .....	1
Camping (informal) .....	2
Parking areas (paved) .....	2
Dumpster pads .....	1
<b>Fixed Costs</b>	
Mob-Demob .....	LS
Asphalt paving .....	5,200 yd <sup>2</sup>
Railroad crossing .....	1
Boundary fence .....	1,500 lf
Site cleanup .....	LS

Table 2-49 -- *Alternative 3, Pine Creek Treaty Fishing Access Site (RM 250.2)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
None	
<b>Land-Based Facilities</b>	
Vault toilets .....	1
Camping (informal) .....	2
Parking areas (paved) .....	2
Dumpster pads .....	1
<b>Fixed Costs</b>	
Mob-Demob .....	LS
Asphalt paving .....	5,200 yd <sup>2</sup>
Railroad crossing .....	1
Boundary fence .....	1,500 lf
Site cleanup .....	LS



Table 2-50 -- *Alternative 4, Pine Creek Treaty Fishing Access Site, (RM 250.2)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
None	
<b>Land-Based Facilities</b>	
Vault toilets . . . . .	1
Camping (informal) . . . . .	2
<b>Fixed Costs</b>	
Mob-Demob . . . . .	LS
Asphalt paving . . . . .	5,200 yd <sup>2</sup>
Railroad crossing . . . . .	1
Boundary fence . . . . .	1,500 lf
Site cleanup . . . . .	LS

#### 2.7.18 Threemile Canyon Treaty Fishing Access Site.

There is no potential to develop adequate Treaty fishing access on this legislated site. Therefore, additional federal land adjacent to the legislated site will be considered. All alternatives considered provide separate facilities for exclusive Treaty fishing use and, therefore, preserve similar facilities for public use at Quesnel Park, administered by the Corps. Four alternatives have been evaluated, each at a separate location and each furnishing varying levels of development, but generally all will provide full development appropriate for the particular site. All of the locations are on an embayment formed with material from the construction of I-84.

A conventional drainfield for disposal of on-site sewage will not be possible due to shallow soils in the area. Therefore, a vault toilet system is recommended for all alternatives. There is no drainfield for Quesnel Park.

a. Alternative 1. Features for Alternative 1 are shown in table 2-51 and on plate 48. This 33.2-acre alternative site is directly adjacent to Quesnel Park on the downstream side. The public boat ramp will be relocated upstream to allow placement of the Tribal ramp adjacent to the existing groin. This will provide a ramp within the area designated for transfer and will also separate incompatible uses at this location. If the public boat ramp is not relocated, two separate areas for exclusive Tribal use will have to be designated and transferred. There will also be unnecessary crossover of vehicular traffic by Tribal fishers and public boaters to park vehicles in the designated parking after launching boats. Approximately 300 yd<sup>3</sup> of dredging is anticipated to ensure adequate depth for boat access to and from the ramp. Prominent land-based facilities will include two vault toilets, six camping sites, a new shelter, seeding, paved parking areas (eight), and an access road.

b. Alternative 2. Features for Alternative 2 are shown in table 2-52 and on plate 49. The site will cover 33.2 acres. This alternative is also immediately downstream of Quesnel Park. However the boat ramp and dock will be placed downstream of the existing groin with an in-water fill (15,000 yd<sup>3</sup> and 2,200 yd<sup>3</sup> of riprap) required for proper placement of the ramp. With the ramp perpendicular to the groin, boats can be launched during windy conditions. The land-based facilities will include two vault toilets, six camping sites, a shelter, seeding, paved parking areas (eight), and an access road.

c. Alternative 3. Features for Alternative 3 are shown in table 2-53 and on plate 50. Acreage for this site is 11.2. This alternative is downstream of Quesnel Park near the end of the embayment next to an existing breakwater and generally provides full development. A new boat ramp and dock are to be provided. Landscaping will be minimal and consist of several plantings. Two vault toilets, four camping sites, new shelter, five paved parking areas and an access road will be provided.

d. Alternative 4. Features for Alternative 4 are shown in table 2-54 and on plate 51. This 18-acre alternative site is downstream of Quesnel Park near the middle of the embayment. River access will include a groin, boat ramp and dock but will require 500 yd<sup>3</sup> of dredging. A vault toilet and 26 paved parking areas are also provided. A new paved access road (700 feet) will be constructed. This alternative was developed for the Working Document.

Table 2-51 -- *Alternative 1, Threemile Canyon Fishing Access Site (RM 255)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Boat ramp . . . . .	1
Dock . . . . .	800 ft <sup>2</sup>
Dredging . . . . .	300 yd <sup>3</sup>
<b>Land-Based Facilities</b>	
Net repair area . . . . .	1
Fish drying shed . . . . .	1
Vault toilets . . . . .	2
Camping sites . . . . .	6
New shelters . . . . .	1
Parking areas (paved) . . . . .	8
Dumpster pads . . . . .	1
Seeding . . . . .	LS
<b>Fixed Costs</b>	
Mob-Demob . . . . .	LS
Asphalt . . . . .	2,860 yd <sup>2</sup>
Boundary fence . . . . .	3,700 lf
Site cleanup . . . . .	LS

Table 2-52 -- *Alternative 2, Threemile Canyon Fishing Access Site (RM 255)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Boat ramp .....	1
Dock .....	800 ft <sup>2</sup>
In-water fill .....	15,000 yd <sup>3</sup>
Riprap .....	2,200 yd <sup>3</sup>
<b>Land-Based Facilities</b>	
Net repair area .....	1
Fish drying shed .....	1
Vault toilets .....	2
Camping sites .....	6
New shelters .....	1
Parking areas (paved) .....	8
Dumpster pads .....	1
Seeding .....	LS
<b>Fixed Costs</b>	
Mob-Demob .....	LS
Asphalt .....	2,860 yd <sup>2</sup>
Boundary fence .....	3,700 lf
Site cleanup .....	LS

Table 2-53 -- *Alternative 3, Threemile Canyon Fishing Access Site (RM 255)*

<b>River Access</b>	
Boat ramp .....	1
Dock .....	800 ft <sup>2</sup>
Dredging .....	300 yd <sup>3</sup>
<b>Land-Based Facilities</b>	
Net repair area .....	1
Fish drying shed .....	1
Vault toilets .....	2
Camping sites .....	4
New shelters .....	1
Parking areas (paved) .....	5
Dumpster pads .....	1
Planting .....	Several
<b>Fixed Costs</b>	
Mob-Demob .....	LS
Asphalt .....	2,400 yd <sup>2</sup>
Gravel surfacing .....	2,900 yd <sup>2</sup>
Boundary fence .....	2,200 lf
Site cleanup .....	LS

Table 2-54 -- *Alternative 4, Threemile Canyon Fishing Access Site (RM 255.1)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Groin . . . . .	1
Boat ramp . . . . .	1
Dock . . . . .	800 ft <sup>2</sup>
Dredging . . . . .	500 yd <sup>3</sup>
<b>Land-Based Facilities</b>	
Net repair area . . . . .	1
Fish drying shed . . . . .	1
Fish cleaning station . . . . .	1
Vault toilets . . . . .	1
Informal camping sites . . . . .	4
Parking areas . . . . .	26
<b>Fixed Costs</b>	
Mob-Demob . . . . .	LS
Asphalt paving . . . . .	7,450 yd <sup>2</sup>
Boundary fence . . . . .	2,400 lf
Site cleanup . . . . .	LS

#### 2.7.19 Alderdale Treaty Fishing Access Site.

This site, which includes a public park is too close to the river, and the soils are too shallow to provide a drainfield. Three levels of development for this site were evaluated.

a. Alternative 1. Features for Alternative 1 are shown in table 2-55 and on plate 52. This 8.6 acre alternative site does not provide river access but does furnish a wide range of land-based facilities. A well will be drilled and a manual pump installed to provide potable water. Landscaping will consist of several plantings and seeding. Six camping sites, a shelter, two vault toilets, and a paved access road will be furnished.

b. Alternative 2. Proposed features for Alternative 2 are shown in table 2-56 and on plate 53. This 9.5-acre alternative site will provide river access, including a groin, ramp and dock but only furnishes minimum land-based facilities. A well will be drilled and a manual pump installed to provide potable water. Landscaping will consist of planting vegetation. Topsoil (250 yd<sup>3</sup>) is to be imported to provide a fertile bedding for the plantings. Other features include two camping sites, a shelter, two vault toilets, two paved parking areas, and an access road.

c. Alternative 3. Proposed features for Alternative 3 are shown in table 2-57 and on plate 54. This 10.6-acre alternative site will not provide river access, but will furnish limited land-based facilities. The alternative was developed for the Working Document. A well will

be drilled and manual pump installed to provide potable water. Two informal camping sites, a vault toilet, and a paved access road are to be furnished.

Table 2-55 -- *Alternative 1, Alderdale Treaty Fishing Access Site (RM 257.5)*

<b>River Access</b>	
None	
<b>Land-Based Facilities</b>	
Well and manual	1
Water system	600 lf
Vault toilets	2
Camping sites	6
Shelter	1
Dumpster pads	1
Planting	Several
Seeding	1 ac
<b>Fixed Costs</b>	
Mob-Demob	LS
Asphalt	4,800 yd <sup>2</sup>
Boundary fence	2,300 lf
Site cleanup	LS

Table 2-56 -- *Alternative 2, Alderdale Treaty Fishing Access Site (RM 257.5)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Groin	1
Boat ramp	1
Dock	1200 ft <sup>2</sup>
<b>Land-Based Facilities</b>	
Well and manual pump	1
Water system	600 lf
Vault toilets	2
Camping sites	2
Parking areas (paved)	2
Dumpster pads	1
Planting	Several
Topsoil	250 yd <sup>3</sup>
<b>Fixed Costs</b>	
Mob-Demob	LS
Asphalt	3,700 yd <sup>2</sup>
Boundary fence	2,200 lf
Site cleanup	LS



Table 2-57 -- *Alternative 3, Alderdale Treaty Fishing Access Site (RM 257.5)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
None	
<b>Land-Based Facilities</b>	
Well and manual	1
Water system	600 lf
Vault toilets	1
Informal camping sites	2
<b>Fixed Costs</b>	
Mob-Demob	LS
Asphalt paving	2,670 yd <sup>2</sup>
Boundary fence	2,100 lf
Site cleanup	LS

#### 2.7.20 Crow Butte Treaty Fishing Access Site.

All four alternatives evaluated are on federal land leased by Washington State Parks Commission but are outside the existing public park. All development plans were reviewed by park officials. Each alternative provides for full development, including river access and land-based facilities appropriate for each site.

a. Alternative 1. Features for Alternative 1 are shown in table 2-58 and on plate 55. This 21.7-acre alternative site will provide river access on a small inlet near the entrance to Crow Butte State Park. A small breakwater will protect the boat ramp from wind and waves. Washington State Parks Commission has agreed to allow hookup to their potable water and sewage disposal systems for the Treaty fishing access site. Water will also be provided for the lawn and planting irrigation system, which will cover an estimated 98,000 ft<sup>2</sup>. Landscaping will be comparable to that provided at the adjacent public park. Topsoil (3,630 yd<sup>3</sup>) will be imported to produce a fertile base for lawn and plants. Other features provided are a fish cleaning station, a restroom/shower building, six camping sites, two new shelters, paved parking areas (six), and an access road.

b. Alternative 2. Proposed features for Alternative 2 are shown in table 2-59 and on plate 56. This 21.6-acre alternative site will provide river access near the entrance to Crow Butte State Park on a small inlet. A rubble mount breakwater will protect the boat ramp from wind and waves. Washington State Parks Commission has agreed to permit hookup to their potable water and sewage disposal systems for the Treaty fishing access site. Water will also be provided for the lawn and plant irrigation system which will cover an estimated 87,120 ft<sup>2</sup>. Landscaping will be comparable to that provided at the adjacent public park. Topsoil (3,230 yd<sup>3</sup>) is to be imported to produce a fertile base for lawn and plants. Other important features provided are a fish cleaning station, a restroom/shower building, 6 camping sites, 2 new shelters, 6 paved parking areas, and an access road.

c. Alternative 3. Alternative 3 features are in table 2-60 and on plate 57. This 17.1-acre site is just upstream of the Crow Butte State Park marina with the Tribal ramp parallel and immediately adjacent to the upstream breakwater. A groin will not be necessary. Dredging of 1,000 yd<sup>3</sup> is anticipated to provide boat access. Potable water will be obtained from the state park. Sewage will be piped to the park waste water treatment facility for processing. Water will also be provided for the lawn and plant irrigation system, which will cover an estimated 87,120 ft<sup>2</sup>. Landscaping will be comparable to that provided at the adjacent public park. Topsoil (3,230 yd<sup>3</sup>) is to be imported to produce a fertile base for lawn and plants. Other features include a fish cleaning station, a restroom/shower building, 6 camping sites, 2 new shelters, 6 paved parking areas, and an access road.

d. Alternative 4. Alternative 4 features are in table 2-61 and on plate 58. This 22-acre alternative site is just downstream of the Crow Butte State Park and the legislated site. A major groin will be installed, and 1,200 yd<sup>3</sup> of dredging is anticipated. Potable water will be drawn from a new well, and the site sewage will be properly treated with a drainfield. The parking area will accommodate 26 vehicles. A two-way access road, approximately 2,100 feet long, will be constructed. Other features include a fish cleaning station, a restroom/shower building, and 6 camping sites. This alternative was generated for the Working Document.

Table 2-58 -- *Alternative 1, Crow Butte Treaty Fishing Access Site (RM 262)*

Item	<u>Quantity</u>
<b>River Access</b>	
Groin .....	1
Boat ramp .....	1
Dock .....	800 ft <sup>2</sup>
<b>Land-Based Facilities</b>	
Water system .....	1
Net repair area .....	1
Fish drying shed .....	1
Sewer system .....	1
Fish cleaning station .....	1
Restroom/shower building .....	1
Camping sites .....	6
New shelters .....	2
Parking areas (paved) .....	6
Dumpster pads .....	2
Planting .....	Several
Topsoil .....	3,630 yd <sup>3</sup>
Irrigation system .....	98,000 ft <sup>2</sup>
<b>Fixed Costs</b>	
Mob-Demob .....	LS
Outside lighting system .....	1
Asphalt paving .....	8,000 yd <sup>2</sup>
Boundary fence .....	3,000 lf
Site cleanup .....	LS

Table 2-59 -- *Alternative 2, Crow Butte Treaty Fishing Access Site (RM 262)*

Item	<u>Quantity</u>
<b>River Access</b>	
Groin . . . . .	1
Boat ramp . . . . .	1
Dock . . . . .	800 ft <sup>2</sup>
<b>Land-Based Facilities</b>	
Water system . . . . .	1
Net repair area . . . . .	1
Fish drying shed . . . . .	1
Sewer system . . . . .	1
Fish cleaning station . . . . .	1
Restroom/shower building . . . . .	1
Camping sites . . . . .	6
New shelters . . . . .	2
Parking areas (paved) . . . . .	6
Dumpster pads . . . . .	2
Planting . . . . .	Several
Topsoil . . . . .	3,230 yd <sup>3</sup>
Irrigation system . . . . .	87,120 ft <sup>2</sup>
<b>Fixed Costs</b>	
Mob-Demob . . . . .	LS
Outside lighting system . . . . .	1
Asphalt paving . . . . .	8,000 yd <sup>2</sup>
Boundary fence . . . . .	3,200 lf
Site cleanup . . . . .	LS

Table 2-60 -- *Alternative 3, Crow Butte Treaty Fishing Access Site (RM 261.8)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Boat ramp .....	1
Dock .....	800 ft <sup>2</sup>
Dredging .....	1,000 yd <sup>3</sup>
<b>Land-Based Facilities</b>	
Water system .....	1
Net repair area .....	1
Fish drying shed .....	1
Sewer system .....	1
Fish cleaning station .....	1
Restroom/shower building .....	1
Camping sites .....	6
New shelters .....	2
Parking areas (paved) .....	6
Dumpster pads .....	1
Planting .....	Several
Topsoil .....	3,230 yd <sup>3</sup>
Irrigation system .....	87,120 ft <sup>2</sup>
<b>Fixed Costs</b>	
Mob-Demob .....	LS
Outside lighting system .....	1
Asphalt paving .....	4,000 yd <sup>2</sup>
Boundary fence .....	3,000 lf
Site cleanup .....	LS

Table 2-61 -- *Alternative 4, Crow Butte Treaty Fishing Access Site (RM 261.5)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Groin . . . . .	1
Boat ramp . . . . .	1
Dock . . . . .	800 ft <sup>2</sup>
Dredging . . . . .	1,200 yd <sup>3</sup>
<b>Land-Based Facilities</b>	
Well and new pump house . . . . .	1
Water system . . . . .	1
Net repair area . . . . .	1
Fish drying shed . . . . .	1
Drainfield . . . . .	1
Fish cleaning station . . . . .	1
Restroom/shower building . . . . .	1
Camping sites . . . . .	6
Parking areas (paved) . . . . .	26
<b>Fixed Costs</b>	
Mob-Demob . . . . .	LS
Outside lighting system . . . . .	1
Asphalt paving . . . . .	7,780 yd <sup>2</sup>
Boundary fence . . . . .	2,700 lf
Site cleanup . . . . .	LS



#### 2.7.21 Faler Road Treaty Fishing Access Site.

This site is within the area leased from the Corps by the Boardman Park District for Boardman Park. Potable water will be piped from the nearest adjacent park trunk line, and sewage will be piped to the nearest City sewer line for processing at the city's waste water treatment facility. The majority of this fishing access site is on undeveloped federal land adjacent to the legislated site. The portion of the legislated site that is considered valuable riparian habitat will be eliminated from consideration for development and transfer. Two alternatives were evaluated for this location.

a. Alternative 1. Features for Alternative 1 are shown in table 2-62 and on plate 59. This 6.9-acre alternative site will not provide river access but will have a wide range of land-based activities. However, the Boardman Park District has agreed to ensure the Tribal fishers use of the boat ramp at the Boardman Park. Sewage will be piped to the park waste water treatment facility for processing. Potable water will be provided from the park system. Water will also be provided for the lawn and plant irrigation system. Landscaping will be comparable to that provided at the adjacent public park. Topsoil (1,330 yd<sup>3</sup>) will be imported to produce a fertile base for lawn and plants. The irrigation system will cover an estimated 36,000 ft<sup>2</sup>. Other important features include a fish cleaning station, a restroom/shower building, six camping sites, eight paved parking areas, and an access road.

b. Alternative 2. Features for Alternative 2 are shown in table 2-63 and on plate 60. This 8.4-acre alternative site will provide river access and a wide range of land-based facilities similar to Alternative 1. A two-way access road, 1,500 feet in length and composed of fill, will be constructed from the shoreline to water depths sufficient to launch boats at minimum operating pool. The fill will also be designed to function as a breakwater for the ramp and dock. Potable water will be provided from the park system. Some landscaping of the site is included. Other important features include a fish cleaning station, a restroom/shower building, six camping sites, eight paved parking areas, and an access road.

Table 2-62 -- *Alternative 1, Faler Road Treaty Fishing Access Site (RM 267.5)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
None	
<b>Land-Based Facilities</b>	
Water system . . . . .	1
Net repair area . . . . .	1
Fish drying shed . . . . .	1
Sewer system . . . . .	LS
Fish cleaning station . . . . .	1
Restroom/shower building . . . . .	1
Camping sites . . . . .	6
Parking areas (paved) . . . . .	8
Dumpster pads . . . . .	2
Plantings . . . . .	Several
Topsoil . . . . .	1,330 yd <sup>3</sup>
Irrigations system . . . . .	36,000 ft <sup>2</sup>
<b>Fixed Costs</b>	
Mob-Demob . . . . .	LS
Outside lighting system . . . . .	2,000 lf
Asphalt paving . . . . .	2,200 yd <sup>2</sup>
Boundary fence . . . . .	2,200 lf
Site cleanup . . . . .	LS

Table 2-63 -- *Alternative 2, Faler Road Treaty Fishing Access Site (RM 267.5)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Boat Ramp Access . . . . .	1
Boat Ramp . . . . .	1
Docks . . . . .	800 ft <sup>2</sup>
<b>Land-Based Facilities</b>	
Water system . . . . .	1
Net repair area . . . . .	1
Fish drying shed . . . . .	1
Sewer system . . . . .	LS
Fish cleaning station . . . . .	1
Restroom/shower building . . . . .	1
Camping sites . . . . .	6
Parking areas (paved) . . . . .	8
Dumpster pads . . . . .	2
Planting . . . . .	Several
<b>Fixed Costs</b>	
Mob-Demob . . . . .	LS
Outside lighting system . . . . .	2,000 lf
Asphalt paving . . . . .	3,500 yd <sup>2</sup>
Boundary fence . . . . .	2,200 lf
Site cleanup . . . . .	LS

2.7.22 Boardman Treaty Fishing Access Site. The legislated site is within lands leased by the City of Boardman. Both alternatives were developed for the Working Document and considered potable water to be piped from the nearest adjacent city trunk line, and sewage piped to the nearest city sewer line for processing at the city's waste water treatment facility.

a. Alternative 1. Features for Alternative 1 are shown in table 2-64. The site is shown on plate 61. A conceptual site development plan was not generated. The city's water supply plant is located on this legislated site. This alternative will not provide river access but will have a wide range of land-based facilities. In addition to potable water and a sewer system, a fish cleaning station, a restroom/shower building, 5 camping sites, paved parking areas (26), and an access road will be provided.

b. Alternative 2. Features for Alternative 2 are shown in table 2-65 and on plate 61. This 11.4-acre alternative site is upstream of the legislated site in a wooded area on undeveloped federal land and contains the city domestic water intake. This alternative will provide river access and a wide range of land-based facilities. Two groins, a boat ramp and dock will be furnished. In addition to potable water and a sewage system, some landscaping will be provided. Other features include a fish cleaning station, a restroom/shower building, five camping sites, 26 paved parking areas, and an access road.

Table 2-64 -- *Alternative 1, Boardman Treaty Fishing Access Site (RM 269)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
None	
<b>Land-Based Facilities</b>	
Water system . . . . .	700 lf
Net repair area . . . . .	1
Fish drying shed . . . . .	1
Fish cleaning station . . . . .	1
Sewer system . . . . .	800 lf
Restroom/shower building . . . . .	1
Camping sites . . . . .	5
Parking areas (paved) . . . . .	26
Dumpster pads . . . . .	2
<b>Fixed Costs</b>	
Mob-Demob . . . . .	LS
Outside lighting system . . . . .	500 ft
Asphalt paving . . . . .	1,700 yd <sup>2</sup>
Boundary fence . . . . .	1,500 lf
Site cleanup . . . . .	LS
Cost to buy out city lease (\$400K) . . . . .	LS

Table 2-65 -- *Alternative 2, Boardman Treaty Fishing Access Site (RM 269.1)*

<u>Item</u>	<u>Quantity</u>
<b>River Access</b>	
Groin .....	2
Boat ramp .....	1
Docks .....	800 ft <sup>2</sup>
<b>Land-Based Facilities</b>	
Water system .....	1,500 lf
Net repair area .....	1
Fish drying shed .....	1
Fish cleaning station .....	1
Sewer system .....	1,500 lf
Restroom/shower building .....	1
Camping sites .....	5
Parking areas (paved) .....	26
Dumpster pads .....	2
<b>Fixed Costs</b>	
Mob-Demob .....	LS
Outside lighting system .....	1,000 ft
Asphalt paving .....	5,800 yd <sup>2</sup>
Boundary fence .....	2,500 lf
Site cleanup .....	LS
Cost to buy out city lease (\$400K) .....	LS
Relocate city water intake (\$1.5 Mil) .....	LS

### 2.7.23 Acquisition Sites.

The 14 sites identified in the David Evans and Associates study (see sections 1.35 and 2.6.2) were evaluated by a multi-disciplinary study team to determine which sites would be selected for further consideration for Treaty fishing access sites. The criteria used to identify these sites were the potential for vehicular access, railroad crossing, camping, boat launching and buildings. It was determined six sites had high potential for developing a Treaty fishing access: Lyle, Wind River, Stanley Rock, White Salmon, Dallesport, and Bingen.

a. Lyle Site. The Lyle site, approximately 5 acres, is on the Washington shore of the Bonneville pool at RM 180.7 immediately east of the mouth of the Klickitat River. See plate A of Appendix B. Vehicular access to the site is available from SR-14 via 7th Street. The 7th Street overpass provides a safe crossing over the Burlington Northern Railroad (BNRR). An abandoned on-site ferry landing is currently used for launching small boats. Tribal fishers and the public use the landing for boat access on the Bonneville pool.



b. Wind River Site. This site of about 41 acres is on the Washington shore on the west bank of Wind River about 1/2 mile upstream of the river confluence with the Bonneville pool at RM 154.7. See plate B of Appendix B. It is situated across the river, due west, from the existing Wind River In-Lieu Fishing Site.

Vehicular access is via State Route (SR-14), north on Hot Springs Road, then northeast on Log Dump Road to the property. Vehicular access across the BNRD is not required. Small boat access from this site to the Bonneville pool is possible by motoring down the Wind River approximately 1/2 mile. The site is divided about equally between flat, open ground that parallels the Wind River, to very steep, heavily wooded slopes for the remainder.

This site, locally known as "the log dump," is an abandoned log off-loading/assemble site which occupied the low-lying river bottom land. Its major use was for off-loading logs from trucks and for assembling log rafts. These rafts were stored temporarily on site and later transported to other locations for processing.

A dredged and rivetted log storage basin of about 5 acres near the southern end of the property served as the waterborne assembly area. A log removal ramp provides access into the log storage basin at a 10 percent slope.

c. Stanley Rock Site. This site of about 12 acres is on the Oregon shore of the Bonneville pool about 1 mile east of the City of Hood River at RM 170.1. See plate C of Appendix B. Vehicular access is from the westbound lane of I-84. The Union Pacific Railroad lies to the South of I-84; therefore, no railroad crossing is required. This site, an existing State of Oregon highway rest area known as Koberg Beach, is within a 40-acre parcel owned by the State of Oregon.

Oregon State Parks and Recreation Department (OPRD) planning and field staff have reviewed the sites suggested by the Corps for purchase of Treaty fishing access consideration as part of preliminary research and evaluation for the upcoming OPRD Gorge District Master Plan. From that evaluation, the 40-acre site including Koberg Beach was determined to provide primarily local summer beach use and Treaty fishing access. It was also determined that development of a Treaty fishing access would not create conflicts with future Columbia River Gorge recreation needs for the general public. As a result, OPRD is open to further discussions concerning the potential sale of Koberg Beach to the Corps. These discussions should include options which might address the possible use of the local beach. In a letter dated May 10, 1993, OPRD requested consideration of public access to the swimming beach on the west end and the top of Stanley Rock during negotiations with the Corps for a Treaty fishing access site. OPRD would retain ownership of the site as a day-use park if a suitable Treaty Tribal acquisition agreement cannot be reached.

The northeastern part of the site is dominated by a large basalt monolith which was used as a rock quarry site for many years. This large rock formation protects the flat eastern part of the site from summer winds and is well suited to provide Bonneville pool boat access. Off-shore

water depths are also well suited for constructing boat launching facilities. Tree cover is limited in the easterly half of the property, primarily because of poor soils. The western half of the property has more vegetation and is dominated by large cottonwood and red alder. The southeasterly portion of the property is a developed state wayside with paved parking, flush restrooms, and all utilities on-site. The westerly half is undeveloped, but has an excellent protected swimming beach.

d. White Salmon Site. This site has two property owners with about 20 acres of land suitable for development. It is at RM 169.5 on the Washington shore of the Bonneville pool immediately downstream of the Hood River/White Salmon Toll Bridge. See plate D of Appendix B. Vehicular access is south from SR-14 via Dock Road. An at-grade public railroad crossing which must be traversed to access the property, is not signalized or gated. The site is situated primarily on two flat benches between the railroad and the Bonneville pool. Generally, it is well suited for providing Treaty fishing access with adequate level land available for camping. The site also has an area with potential for developing a boat launching ramp and dock. There are presently three residences on the property. Domestic water is from the local municipal system, and electrical and phone lines extend onto the site. Sewage disposal is provided by septic tank and drainfield. New sewage facilities will probably need to be developed.

The existing vegetation on the site includes native grasses, mature cottonwood, Oregon ash and red alder. Much of the site is vegetated by wild blackberries. There will be an additional cost required as relocation assistance and removal of residences or relocation of the structures in the baseline cost estimate.

e. The Dallesport Site. This site of about 10 acres is on the Washington shore of the Bonneville pool at RM 188.5, across the pool from the City of The Dalles. See plate E of Appendix B. Vehicular access is provided from Washington SR-14 then south on Old Ferry Road past the Dallesport Municipal Airport. Old Ferry Road crosses the railroad via a public crossing near the Dallesport, providing site access.

For the most part, a steep bank and deep off-shore water are along most of the pool side of the site. One area near the western end of the site is within a protected cove ideally suited for boat launching and landing docks. Vehicular access on the site is provided by an old railroad bed between the existing railroad and the edge of the pool. This railroad bed traverses the entire site.

f. Bingen Boat Channel. This site of about 4 acres is on the Washington shore of the Bonneville pool at the entrance to the Bingen Boat Basin Channel at RM 172. See plate F of Appendix B. Vehicular access to this site is very difficult. There is no public railroad crossings nor public roads after crossing the railroad. The two existing private railroad crossings provide access from SR-14 into a lumber mill and a large truck farming area. Once on private land, access to the site is via maintenance roads on top of existing levees protecting the adjacent agricultural land. The site lies on a small flat bench close to the Bonneville pool

and is heavily vegetated with grass and a few clumps of deciduous trees. No utilities are available, and a conventional boat launching ramp would be very difficult to construct. The property is owned by the Port of Klickitat County and no land values have been determined. The other nearby property owners indicated during the initial screening process are not willing sellers. This small site is currently used by Treaty fishers.

## **2.8 Evaluation of Alternatives**

Several criteria were considered in evaluating the alternatives for treaty fishing access (the twenty-two sites on Federal lands referenced on maps with delineated boundaries) and two in-lieu fishing sites. These included the construction and total average annual costs, conflict avoidance benefits (dollar amounts listed as incidental benefits or losses), fulfilling requirements of P.L. 100-581, tribal acceptability, avoidance of adverse environmental impacts, incremental cost analysis, site location index (SLI), and lessee and public concerns. Costs used in the alternatives evaluation are at October 1991 price level.

The three reservoir pools (Bonneville, The Dalles and John Day) on which the treaty fishing access and in-lieu fishing sites are or will be located were evaluated separately. River access to each pool is essential to the four Tribes, including the north and south shores. Cost effectiveness between sites was not done generally because of the of P.L. 100-581 requirements. A system of sites from the Bonneville Dam to McNary Dam are to be provided to allow the Tribes the ability to access the fish runs wherever these runs may be found. Furthermore, adjusting the list of legislated sites or adjustments in the legislative boundaries requires consultation and concurrence with the four Tribes and legislative approval.

Incremental cost comparisons on the alternatives were useful in plan selection or modification where prohibitively high costs were identified compared with other sites on particular development features. Generally the alternatives with the least construction and total average annual costs also had the least total average annual costs per unit of output. Levels of output are discussed in section 2.4.1. However, the lack of hard data to define and quantify outputs did not lend itself to detailed cost-effective incremental comparisons. Furthermore, fulfilling requirements of P.L. 100-581, tribal acceptability, avoidance of environmental impacts, and lessee and public concerns were justification for not selecting the least-cost alternative.

### **2.8.1 Wind River In-lieu Fishing Site.**

There were two alternatives generated for this site, both on the existing BIA site. Each represents a different level of development of site rehabilitation.

a. Development Evaluation. Alternative 1 will not re-establish river access that has been eliminated by shoaling adjacent to the boat ramp. Only limited land-based facilities are to be furnished. Refer to table 2-1. The intent is to transfer much of the development necessary for Treaty fishing access in this area across the river to the site identified for acquisition, also called Wind River. This would avoid annual dredging of an estimated 6,700 yd<sup>3</sup> of river

sediment. However, preliminary evaluations estimate initial dredging to be approximately 5,000 yd<sup>3</sup>. There is a potential to reduce this estimate with more detailed investigations planned in the next phase. Annual dredging quantities and impacts are expected to be less at the Wind River acquisition site. The Tribes would continue to use the in-lieu site for camping and ceremonial purposes. The Tribes routinely erect sweat lodges on-site for ceremonial use.

Alternative 2 will re-establish river access at Wind River In-lieu Site. Refer to table 2-3. Consequently, river access at the site would warrant furnishing the full array of appropriate land-based facilities. However, finding a location for disposal of the annual dredge material will require further investigation and evaluation. Mitigation will be required for dredging of the shoal and loss of shallow water habitat. Re-establishing river access would satisfy the requirements of P.L. 100-581 that specified dredging at the Wind River In-lieu Fishing Site.

b. Cost/Output Evaluation. Alternative 1 has the least total costs for the two alternatives (\$189,459 versus \$1,066,591, respectively) and the least total average costs (\$27,748 versus \$262,642). Refer to Appendix K, Attachment K-5 for more information on costs. However, Alternative 1 will not have any output for river access, whereas Alternative 2 would re-establish use of the existing boat ramp providing Tribal fishers with the opportunity to set, tend, and retrieve an estimated 84 nets in a normal week of fishing. There will be 6 camping areas on Alternative 1 and 6 on Alternative 2. Hence, there will be 4 land-based activities outputs for Alternative 1 and 6 for Alternative 2.

c. Acceptability Evaluation. The four Tribes and BIA support Alternative 1 for the Wind River In-lieu Fishing Site with full development of the Wind River acquisition site including river access. This latter site has the potential to be developed as a Treaty Fishing Access Site and is discussed in more detail later in the report in section 3.2.24. The site to be acquired will provide adequate facilities for Tribal fishing activities on the Columbia River in the vicinity of RM 155.0. Less travel time will be required for Tribal fishers if the river access is downstream at the acquisition site. There is also less annual dredging required and the site appears more acceptable to the resource agencies. The Corps also favors Alternative 1 for the Wind River In-lieu Fishing Site with full development of the Wind River acquisition site.

The Site Location Index (SLI) discussed in Appendix K, Economic Report, section 4.2 indicates a Treaty fishing access site with a boat ramp at Wind River has a high advantage (SLI of 1,168). This high SLI number indicates a number of net locations can be served more efficiently from Wind River. Reduced dredging and operating costs is another advantage to locating the boat ramp at this site.

Development of Alternative 1 would provide sufficient facilities for camping and continued ceremonial use of the Wind River In-lieu Fishing Site by the four Tribes. This development would furnish appropriate sanitary facilities for site users and remove deteriorated structures.



### 2.8.2 Cooks Inlet In-lieu Fishing Site.

Two alternatives investigated for this site are on the existing BIA in-lieu site. Each represents a different level of development for rehabilitation of the site.

a. Development Evaluation. Alternative 1 would rehabilitate or replace existing on-site facilities and provide additional facility capability at the site. Refer to table 2-3. A new dock will be furnished for additional moorage, and repair of the existing dock will fully re-establish past moorage capacity. A water storage tank will be installed to better meet peak demands for potable water. BIA recently replaced the pump for the well. Showers, added to the restroom building at the specific request of the four Tribes and BIA, will increase operations and maintenance costs. Refer to Appendix C, Tribal Comments. on-site sewage is periodically pumped from a large holding tank and hauled off site for processing. The site will be seeded with grass. An asphalt overlay will be placed on the access road, and the existing parking area will be graveled.

Alternative 2 would also rehabilitate or replace existing on-site facilities without providing additional facility capability. Refer to table 2-4. This alternative will re-establish functional capability of the existing facilities. A new well, pump, pumphouse and water system would be furnished to meet peak potable water demands. The restroom building and fish cleaning station will be rehabilitated. Some plantings are to be included for landscaping. The existing access road and parking area will be graveled. This alternative will not provide additional docks for moorage, showers, or an asphalt overlay for the access road.

b. Cost/Output Evaluation. Alternative 1 has the highest total costs for the two alternatives (\$832,635 versus \$715,893, respectively) and highest total average annual (\$86,264 versus \$89,264). Refer to Appendix K, Attachment K-5 for more information on costs. The additional costs for Alternative 1 are primarily for a new dock, adding showers to the restroom/shower building and asphalt paving of the existing access road.

c. Acceptability Evaluation. The four Tribes and BIA support Alternative 1 for the Cooks Inlet In-lieu Fishing Site. Both foresee a need for showers and expanded moorage (docks) at the site to meet anticipated use. As discussed earlier in section 2.4.1, P.L. 100-581 identifies the facilities to be provided including showers and expanded moorage. Though Alternative 1 is not the least-cost alternative, it will meet the expectation of the four Tribes and BIA. In addition, it will not exceed the development requirements of P.L. 100-581.

### 2.8.3 Avery Treaty Fishing Access Site.

Four alternatives were developed for this site. Alternatives 1 and 2 were on the legislated site (RM 197.4), which also includes a public park, Avery Park, administrated by the Corps. Alternative 3 is downstream of Avery Park at RM 197.8. Alternative 4 is upstream of Avery Park at RM 197.0. The last two alternatives were investigated to avoid transfer of Avery Park for a Treaty fishing site.



a. Development Evaluation. Alternative 1 and 2 provide river access with minimum land-based facilities. Refer to table 2-5 and table 2-6. They differ from each other only in the level of landscaping furnished. Alternative 1 has seeding with grass, and Alternative 2 has plantings.

Alternative 3 is not a viable alternative. Development at this site is restricted by the Burlington Northern Railroad right-of-way. There is insufficient lands for development.

Alternative 4 will also provide river access with minimum land-based facilities but at a location outside Avery Park. Refer to table 2-7 and plate 8. Constructing a Treaty fishing access site at this location would avoid potential recreation impacts to Avery Park. However, further detailed field reviews of Alternative 4 revealed difficulty in developing a Treaty fishing access site as identified in the conceptual development plan. A cost-effective conventional boat ramp cannot be constructed at this location as previously discussed in section 2.7.3. The excavation of 2,000 yd<sup>3</sup> of in-situ rock is low. A vertical rock cliff was observed several tens of feet high immediately adjacent to the river location.

There will be impacts to the public by improving Avery Park and designating the site as a Treaty fishing access site for transfer to BIA. These impacts are discussed in the Environmental Assessment at the end of the main report in the green pages and the Recreational Assessment, Appendix L. A loss of 39,146 average annual visitor days are predicted with the transfer of Avery Park to BIA. Refer to table L-4 in Appendix L, recreational assessment.

b. Cost/Output Evaluation. Alternative 1 has the lowest total costs (\$1,218,604) of the three alternatives, but only has the second lowest total average annual costs (\$912,931). Refer to table 2-66. Transferring Avery Park to BIA for exclusive use by the four Tribes will result in incidental recreational losses estimated at an annual value of \$776,574. Alternative 4 will have no impact to recreation at Avery since it will be upstream of Avery Park, resulting in lower total average annual costs.

With river access, Alternatives 1, 2 and 3 will provide Tribal fishers with the opportunity to set, tend, and retrieve an estimated 84 nets during a normal week of fishing. None of the alternatives have camping and, consequently, will not provide land-based activities outputs.

c. Acceptability Evaluation. Public impacts by improving Avery Park and transferring the site to BIA are anticipated and unavoidable. The site is not large enough to provide separate facilities for both the Tribal fishers and the public. Development and transfer of Avery Park is the least-cost alternative for developing a Treaty fishing access site at this location.

Table 2-66 -- *Summary of Costs for Avery.*

Site	Total Costs	Incidental Losses	Total Average Annual
Alternative 1	\$1,218,604	\$776,574	\$912,931
Alternative 2	\$1,251,014	\$776,574	\$915,967
Alternative 3	0	0	0
Alternative 4	\$1,624,601	0	\$174,391

Avery has a high SLI (1,214) for the base condition. The base condition includes existing boat ramps, both treaty fishing access and in-lieu fishing sites, currently used by Tribal fishers. Refer to Appendix K, section 4.2.3 and table K-18 and K-19. Avery ranks third in the base condition behind Sundale and Underwood. The higher the SLI the more advantageous the site for Treaty fishing.

The Corps supports improvement and transfer of Avery Park, Alternative 1. A cost-effective alternative could not be identified in the immediate vicinity. The four Tribes and BIA also endorse Alternative 1 for Avery.

#### 2.8.4 Celilo Treaty Fishing Access Site.

Five alternatives were developed for this site. Alternatives 1, 2, 4 and 5 represent different levels of development at the legislated site. Alternative 3 presents development of Treaty fishing access within the Celilo Park just downstream of the legislated site.

a. Development Evaluation. Alternative 1 and 2 are full development of the legislated site. Refer to table 2-8 and table 2-9. Both will provide the full range of facilities appropriate for river access and land-based facilities. Alternative 1 will provide less landscaping and asphalt paving. Less topsoil will be imported (4,100 yd<sup>3</sup> versus 5,297 yd<sup>3</sup>, respectively). The size of the irrigation system is smaller (110,000 ft<sup>2</sup> versus 130,000 ft<sup>2</sup>). The surface area of the asphalt is less (5,900 yd<sup>2</sup> versus 6,330 yd<sup>2</sup>).

Alternative 3 will provide the appropriate river access with minimum land-based facilities adjacent to the existing boat ramp at Celilo Park. Refer to table 2-10. The land-based facilities would include a net repair area, vault toilet, 15 parking spaces and a dumpster pad. Tribal users may continue to use park facilities for camping and processing of fish. A groin will not be required to protect the treaty fishing boat ramp and dock. Both will be in a small embayment separated from the main river by an existing groin.

Alternative 4 also provides river access with minimum land-based facilities on the legislated site. Refer to table 2-11. However, unlike Alternative 3, a groin will be required to protect

river access facilities. The river access facilities are identical to those proposed for Alternative 1 and 2. The land-based facilities would include a net repair area, vault toilet, 15 parking spaces and a dumpster pad. Tribal users may continue to use park facilities for camping and processing of fish. These park facilities are not as convenient for Tribal users with the boat ramp upstream some distance from the park.

Alternative 5 is also full development of the legislated site and will furnish the full range of river and land-based facilities. Refer to table 2-12. Unlike Alternative 1 and 2, this alternative has two groins. However, there is a significant difference in the land-based facilities between this alternative and Alternatives 1 and 2. The land-based improvements not included in Alternative 5, but included in Alternative 1 and 2, are a vault toilet, dumpster pads, landscaping and an irrigation system. Additionally, fewer parking spaces are provided for the first two alternatives (15 versus 21, respectively).

Implementing Alternative 1, 2 or 5 is anticipated to increase the average annual visitor days at Celilo Park by 33,072. Alternative 3 is predicted to decrease the average annual visitor days by 165,359. Developing primarily river access at the legislated site, Alternative 4, is expected to increase the average annual visitor days by 16,586. Refer to table L-4 in Appendix L.

b. Cost/Output Evaluation. The costs for the five Celilo alternatives are shown in table 2-67. Alternative 4 has the least total costs (\$2,065,542) and Alternative 1 has the least total average annual costs (\$341,933). The amounts footnoted, under the title incidental benefits, are positive values that offset average annual total costs. These incidental benefit values are combined with average annual total costs. In some cases these positive values are large enough to offset average annual total costs, demonstrating a conflict avoidance benefit in constructing the alternative. Refer to Appendix K, attachment K-5 for development of the costs.

Alternatives 1, 2, 4 and 5 will reduce the recreation impacts which result from current Treaty fishing activities at Celilo Park (termed conflict avoidance benefit in this report). Each provides separate facilities for Tribal fishers at the legislated site with Alternatives 1, 2 and 5 having the best separation of incompatible uses and, consequently, the highest positive values for incidental benefits. Hence, all three have incidental benefits after site development, due to conflict avoidance at Celilo Park, that support implementation of a Treaty fishing access at the legislated site with higher initial cost.

With river access, all alternatives will provide Tribal fishers with the opportunity to set, tend, and retrieve an estimated 84 nets during a normal week of fishing. Alternatives 1, 2 and 5 each furnish 5 camping sites and will provide 5 land-based activities outputs.

Table 2-67 -- *Summary of Costs for Celilo*

Site	Total Costs	Incidental Benefits	Total Average Annual
Alternative 1	\$3,666,563	\$707,612 <sup>1</sup>	\$341,933 <sup>2</sup>
Alternative 2	\$3,901,345	\$707,612 <sup>1</sup>	\$319,939 <sup>2</sup>
Alternative 3	\$2,589,986	\$3,538,062	\$3,802,889
Alternative 4	\$2,065,542	\$353,806 <sup>1</sup>	\$138,109 <sup>2</sup>
Alternative 5	\$3,540,551	707,612 <sup>1</sup>	\$353,738 <sup>2</sup>

<sup>1</sup> Positive incidental benefit values

<sup>2</sup> Represents incidental beneficial total average annual cost

c. Acceptability Evaluation. Fishing access at Celilo is very important to the four Tribes. Celilo Village, across I-84 from Celilo Park, is the permanent residence of a number of Tribal fishers. Furthermore, the now inundated Celilo Falls is just downstream. The falls were the prominent fishing site for Tribal fishers on the lower Columbia River and still have ceremonial and historic significance to the Tribes.

Alternative 3 does not totally separate incompatible uses. Tribal members may continue to use park facilities for camping and fish processing with a Tribal boat ramp immediately upstream of the Celilo Park ramp. Celilo Park is usually at capacity during peak seasons. The park boat ramp is the primary access for sport fishing of the lower Deschutes River, especially near the mouth. The Deschutes enters the Columbia just above Celilo Park. With the continued heavy use of Celilo Park by sport and Tribal fishers, conflicts between these two incompatible user groups can be expected if this alternative is implemented.

However, disturbance to known cultural artifacts on the legislated site will be avoided with implementation of Alternative 3. An archeological site identified at the legislated site contains prehistoric and historic elements.

Alternative 4 primarily provides river access but may not totally separate incompatible uses. There is the potential, however, to reduce impacts to cultural artifacts on the legislated site by eliminating a wide range of land-based facilities. Less surface disturbance is possible by not furnishing camping, a restroom/shower building with drainfield, potable water, fish processing facilities, landscaping and an irrigation system. However, this is an important fishing access location for the four Tribes, and camping sites are also very much in demand at the Celilo Park by the public. This alternative does provide better separation than Alternative 3, but not as much as Alternatives 1, 2, and 5.



Alternatives 1, 2, and 5 will provide full development (river access and land-based facilities) on the legislated site but differ in the level of facility development. All three will separate incompatible uses, public recreation and Tribal fishers. Alternatives 1 and 2 are similar, but differ in quantities of items provided. Unlike Alternatives 1 and 2, Alternative 5 has two groins instead of one. Hence Alternative 5 will have more environmental impact than the other two alternatives providing full development. The FWS has advised the Corps to minimize impacts to the fish and wildlife habitat on this project. Alternative 5 also provides fewer land-based facilities including landscaping, which is very important to the four Tribes and BIA. Landscaping is identified in P.L. 100-581 for site development.

Disturbance to known cultural artifacts on the legislated site is anticipated with the three alternatives discussed. A mitigation plan has been developed for cultural resources on the legislated site. Further consultation with the four Tribes on location of facilities during the following phases of the project could avoid impacts to cultural resources.

Providing separate Treaty fishing access for the four Tribes will improve conditions for the public and Tribal fishers at Celilo. Tribal use of the existing Celilo Park boat ramp and land-based facilities has had an impact at Celilo Park. Implementation of Alternative 1 or 2 will have considerable avoidance conflict benefits.

Alternative 1 will provide full development of the legislated site and is supported for implementation by the four Tribes and BIA. All five alternatives have been reviewed in consultation with the four Tribes and BIA. The Corps supports Alternative 1 and the transfer of a portion of Celilo Park to develop the drainfield for the Treaty fishing access site on the legislated site as identified in paragraph 2.7.4.

#### 2.8.5 Maryhill Treaty Fishing Access Site.

A Treaty fishing access site will be at Maryhill Park instead of Cliffs. Two alternatives were generated for this site, each representing a different level of development at the same site.

a. Development Evaluation. Alternatives 1 and 2 provide full development (river access and land-based facilities) appropriate for this site but differ in the level of facilities provided. Refer to table 2-13 and table 2-14. Alternatives 1 and 2 differ in quantities to be dredged (500 yd<sup>3</sup> versus 2,000 yd<sup>3</sup>, respectively), asphalt paving (3,500 yd<sup>2</sup> and 4,780 yd<sup>2</sup>) and square footage of irrigation system (51,000 ft<sup>2</sup> versus 43,000 ft<sup>2</sup>).

b. Cost/Output Evaluation. Alternative 1 has the least total costs for the two alternatives (\$2,632,826 versus \$2,822,976, respectively) and the least total average annual costs (\$268,840 versus \$286,653). Refer to table 2-68. With river access, both alternatives will provide Tribal fishers with the opportunity to set, tend, and retrieve an estimated 84 nets during a normal week of fishing. Four camping areas provided for each alternative will furnish four land-based activities outputs.



Table 2-68 -- *Summary of Costs for Maryhill*

Site	Total Costs	Incidental Benefits	Total Average Annual
Alternative 1	\$2,632,826	\$0	\$268,840
Alternative 2	\$2,822,976	\$0	\$286,653

b. Acceptability Evaluation. The Tribes have negotiated the location of a Treaty fishing access site within Maryhill State Park with Washington State Parks Commission as discussed in section 2.7.5. The Commission has agreed to release 9.9 acres from their lease of federal land for Maryhill Park. The Corps has agreed to develop a Treaty fishing access site at this location instead of the Cliffs legislated site.

It appears that development of a site at Cliffs is technically very difficult. This is discussed in more detail in paragraph 2.8.6. The navigation channel for the barge traffic is immediately offshore of the Cliffs site, and the shore is subject to erosion and deposition depending on the location. Therefore, it is questionable whether a conventional boat ramp can be constructed.

Developing Alternative 1 or 2 is anticipated to be beneficial for the public and Tribal fishers. Tribal use of the existing Maryhill Park boat ramp and land-based facilities has not decreased or increased the average annual visitor days. However, providing separate Treaty fishing access for the Tribes will improve conditions for the public and Tribal fishers.

The four Tribes and BIA have endorsed the selection of Maryhill Alternative 1 for implementation. They also support the exchange of Maryhill for Cliffs. The Corps also supports development of Maryhill instead of Cliffs.

#### 2.8.6 Cliffs Treaty Fishing Access Site.

Two alternatives considered early in the planning phase provide development of fishing and river access at two different sites for Cliffs.

a. Development Evaluation. Alternatives 1 and 2 are full and partial development of the selected sites. Refer to tables 2-8 and 2-9 and plates 14 and 15. Alternative 1 will provide more facilities than Alternative 2, including a net repair area, a fish drying shed, sewage system, a fish cleaning station, and four camping sites. Alternative 2 will require paving of an additional access road.

There will be impacts to the public by developing a Treaty fishing site at Cliffs. A loss of 16,586 average annual visitor days for dispersed use are predicted if a Treaty fishing site is developed at Cliffs. Tribal use of the existing Cliffs Park area probably has had an impact on average annual visitor days, but there is no hard data.

b. Cost/Output Evaluation. Alternative 1 will have the least total costs for the two alternatives (\$2,896,638 versus \$3,034,189, respectively) and the least total average annual costs (\$622,350 versus \$635,235). Refer to table 2-69. With river access, both alternatives will provide Tribal fishers with the opportunity to set, tend, and retrieve an estimated 84 nets during a normal week of fishing. There will be four camping areas on Alternative 1 and none on Alternative 2. Hence, Alternative 1 will provide four land-based activities output.

Neither alternative for Cliffs will have less total costs and total average annual than Alternative 1 for Maryhill. Alternatives for Cliffs have higher initial construction costs and recreation impacts that result in incidental losses.

Table 2-69 -- *Summary of Costs for Cliffs*

Site	Total Costs	Incidental Losses	Total Average Annual
Alternative 1	\$2,896,638	\$328,796	\$622,350
Alternative 2	\$3,034,189	\$328,796	\$635,235

c. Acceptability Evaluation. Neither of these alternatives is satisfactory. The navigation channel for barges on the Columbia River in the vicinity of Cliffs is near the north shoreline, where Cliffs is located. The John Day dam lock is immediately upstream of the site. Therefore, construction of groins necessary to protect the boat ramp and dock may extend into the navigation channel or present a hazard for barge traffic. Small boats leaving and returning to the boat ramp would be required to maneuver through or adjacent to the navigation channel. The shore line at Cliffs is subject to erosion and deposition. In the past the public boat ramp has been infilled with sand requiring periodic dredging. There are also indications of wind erosion along the shore. Strong currents, common with the daily peak release from the dam, are undesirable for small boats.

Both Cliff alternatives have much higher costs than the Maryhill Alternative 1. Maryhill Alternative 1 is the least-cost alternative and is more technically feasible. Developing Maryhill instead of Cliffs will improve conditions for the public at Cliffs. Tribal use of the existing Cliffs Park has had an impact. Implementation of Maryhill Alternative 1 will eliminate the recreation impacts (incidental losses) to the public at Cliffs.

The four Tribes and BIA support not developing Cliffs. The Tribes have negotiated development of the a Treaty fishing access site at Maryhill State Park as discussed in paragraph 2.8.5. The Corps also prefers not developing Cliffs but developing Maryhill primarily due to less desirable site conditions at Cliffs.

## 2.8.7 Rufus Treaty Fishing Access Site.

Four alternatives were considered for Rufus. Alternative 1 and 2 were at the same location, the legislated site, and only furnish land-based facilities. Two sites on adjacent federal land were investigated for Alternatives 3 and 4, and both will provide river access. Each alternative presents a different level of development.

a. Development Evaluation. Alternatives 1 and 2 will only have minimum land-based facilities. Both of these alternatives are considered partial development. Refer to table 2-17 and table 2-18. These alternatives differ in the quantities of topsoil imported for landscaping (0 yd<sup>3</sup> versus 530 yd<sup>3</sup>, respectively) and asphalt paving (500 yd<sup>2</sup> versus 450 yd<sup>2</sup>). The amount of landscaping for Alternative 1 is less than Alternative 2, in that seeding is included, as opposed to plantings with topsoil.

Alternatives 3 and 4 will provide river access and minimal land-based facilities. Refer to table 2-19 and table 2-20. They differ in the facilities furnished. Alternative 4 will furnish two groins. Alternative 3 will provide one groin and additional facilities including a potable water system, 5 informal camping sites and a paved access road.

b. Cost/Output Evaluation. Alternative 1 has the lowest total costs for the four alternatives (\$207,224) and the lowest total average costs (\$29,412). Refer to table 2-70. However, Alternatives 1 and 2 will not have any output for river access since these facilities are not furnished, whereas Alternative 3 and 4 will furnish river access facilities; this provides Tribal fishers with the opportunity to set, tend, and retrieve an estimated 84 nets in a normal week of fishing. Alternative 4 will be the only alternative that provides land-based activities output since five informal camping areas are included.

c. Acceptability Evaluation. Tribal use is low for this site and is not anticipated to increase. Furthermore, Preachers Eddy is a little more than one mile upstream and will have river access facilities, enabling Tribal fishers using Rufus to launch boats.

For Alternatives 1 and 2, site development was also limited to preserve near shore valuable riparian habitat. The Oregon Department of Fish and Wildlife holds a lease on the site for Alternative 3 and considers portions of the site valuable fish and wildlife habitat. Development of Alternative 4 would also impact valuable riparian habitat along the shoreline. Cost efficiencies in selecting alternatives for Rufus and Preachers Eddy are summarized in table 2-85, Acceptability Evaluation (The Dalles Pool) in footnote, Combined Site Development.

Therefore, the site selected for Rufus was the legislated site, and Alternative 1 is supported by the four Tribes and BIA. The Corps also supports implementation of Alternative 1 since it allows considerable savings in costs.

Table 2-70 -- *Summary of Costs for Rufus*

Site	Total Costs	Incidental Losses	Total Average Annual
Alternative 1	\$207,224	\$0	\$29,412
Alternative 2	\$261,849	\$0	\$38,767
Alternative 3	\$2,213,758	\$21,093	\$250,675
Alternative 4	\$2,597,688	\$0	\$265,548

#### 2.8.8 Preachers Eddy Treaty Fishing Access Site.

Three alternatives were considered for Preachers Eddy that includes part of the legislated site, and each provides river access with minimum land-based facilities. This site is within the Giles French Park administered by the Corps. Any Tribal fishers requiring camping may use the Rufus Treaty Fishing Access Site.

a. Development Evaluation. Alternatives 1 and 2 have similar levels of development but differ in the facilities furnished or quantities of material provided for each item. Refer to table 2-21 and table 2-22. The additional facilities included in Alternative 1 but not Alternative 2 are a well/pumphouse and outside lighting. Alternatives 1 and 2 further differ in the quantities of topsoil imported for landscaping (1,600 yd<sup>3</sup> versus 2,307 yd<sup>3</sup>, respectively) and size of the irrigation system (43,000 ft<sup>2</sup> versus 55,000 ft<sup>2</sup>).

Alternative 3 also provides primarily river access but provides even fewer land-based facilities than Alternatives 1 and 2 including landscaping. Refer to table 2-22. A new groin is required for Alternative 3, not just an extension of an existing groin. The only land-based facilities included are 2 dumpster pads, 25 parking areas and 2 vault toilets.

b. Cost/Output Evaluation. Alternative 3 has the least total costs (**\$3,181,449**) and the least total average costs (**\$320,234**). See table 2-71. All three alternatives will not provide land-based facilities output because camping has not been included in any of the alternatives. River access, included in each alternative, will provide the Tribal fishers with the opportunity to set, tend, and retrieve an estimated 84 nets in a normal week of fishing.



Table 2-71 -- *Summary of Costs for Preachers Eddy*

Site	Total Costs	Total Average Annual
Alternative 1	\$3,473,784	\$347,620
Alternative 2	\$3,484,881	\$348,659
Alternative 3	\$3,181,449	\$320,234

c. Acceptability Evaluation. All three alternatives would minimize impacts to the Giles French Park. The park public access will be maintained, but the public boat ramp will be relocated upstream for Alternatives 1 and 2 as described in section 2.7.8. Constructing a new groin for Alternative 3 will have more environmental impact than the extension of the existing groin proposed for Alternatives 1 and 2, including relocation of the public boat ramp. The FWS has requested the Corps avoid further impacts to the shoreline and shallow water habitat. Confining new development to areas that have been previously disturbed is anticipated to have fewer impacts.

Alternative 3 will provide better separation between incompatible uses than Alternatives 1 or 2. The existing groin will lie between the Treaty fishing ramp and the public ramp. Alternatives 1 and 2 will provide separate facilities, and signing, handrails, stripping, and landscaped barriers are to be included for easy boundary identification and more separation. These features will divide the Treaty fishing site and Giles French Park into individual entities. This level of separation is viewed as adequate by the four Tribes, BIA and the Corps.

There is no anticipated change in the average annual number of visitor days with Alternative 1, 2, or 3. Refer to table L-4 in Appendix L, Recreational Assessment. Tribal use of the existing Giles French Park boat ramp and land-based facilities has had an impact on the public, but no hard data is available. Providing separate Treaty fishing access for the Tribes will improve conditions for the public and Tribal fishers at Giles French Park.

If landscaping is included in Alternative 3, then Alternative 1 will be the least-cost alternative. The law includes landscaping as a development feature, and the four Tribes and BIA have requested this be provided at Preachers Eddy (see Tribal comments, Appendix C).

Significant cost savings are recognized by locating the camping at Rufus and the river access at Preachers Eddy. There does not appear to be justification for fully developing both sites. Cost efficiencies in selecting Alternative 1 for Preachers Eddy and Rufus are summarized in table 2-85, Acceptability Evaluation (The Dalles Pool) in footnote, Combined Site Development. Development has also been concentrated in previously disturbed areas for both sites to minimize environmental impacts. The four Tribes, BIA, and the Corps support implementation of Alternative 1 for Preachers Eddy.



### 2.8.9 North Shore Treaty Fishing Access Site.

Four alternatives were considered for North Shore. Alternatives 1, 2, and 4 provide river access with limited land-based facilities. Alternatives 1 and 4 will require transfer of a portion of Railroad Island Park administered by the Corps. Alternative 3 only furnishes limited land-based facilities on the legislated site.

a. Development Evaluation. Alternatives 1 and 4 are similar in levels of development. Refer to table 2-24 and table 2-27. They differ in that Alternative 1 provides a dumpster pad and seeding, neither of which is provided in Alternative 4. However, Alternative 4 furnishes two informal camping sites and two more parking areas. The boat ramp and dock for Alternatives 1 and 4 are within Railroad Island Park. Refer to plates 23 and 26. Alternative 4 will require transfer of two separate parcels of land since the boat ramp and dock for the park is between the Tribal land-based facilities and boat ramp/dock. The Tribal land-based facilities are west of the park boat ramp/dock and the Tribal boat ramp/dock are east of the park boat ramp/dock. For Alternative 1, the Tribal boat ramp/dock are west of the park ramp/dock; therefore, only one parcel of land will be transferred.

Alternative 2 is similar to Alternatives 1 and 4, see table 2-25. Alternative 2 differs from Alternative 1 in that two formal camping sites are furnished, a higher quantity of landscaping (plantings versus seeding, respectively) is included and the parking areas are paved as opposed to gravel. Additionally, the boat ramp and dock are outside Railroad Island Park, unlike Alternatives 1 and 4, but will require rock excavation (1,000 yd<sup>3</sup>) for construction of the boat ramp due to the steep rocky shoreline. Alternatives 2 and 4 further differ in that Alternative 2 has landscaping, two formal camping areas instead of informal and four asphalt parking areas as opposed to six gravel. Both Alternatives 1 and 4 will require transfer of a portion of Railroad Island Park to BIA.

Alternative 3 is minimum development of the legislated site. See table 2-26. No river access is included. A vault toilet and two informal camping sites are to be provided.

There will be impacts to the public by developing Alternative 4 as a Treaty fishing site at Northshore. A loss of 3,845 average annual visitor days are predicted if Alternative 4 is implemented. Tribal use of the existing Railroad Island Park boat ramp and land-based facilities has had an impact but there is no hard data available. Therefore, providing separate Treaty fishing access for the Tribes will improve conditions for the public and Tribal fishers.

b. Cost/Output Evaluation. Alternative 3 has the least total costs (\$349,181) and total average costs (\$54,911). Refer to table 2-72. This alternative will not furnish river access but will provide two camping areas. However, the site will only be accessible by boat and will not have vehicular access.

The other three alternatives will furnish river access providing the Tribal fishers with the opportunity to set, tend, and retrieve an estimated 84 nets in a normal week of fishing.

Alternative 1 will have the lowest total costs (\$556,901) and total average costs (\$74,370) for the alternatives that furnish river access. However, Alternative 1 will not furnish camping thus no land-based activities output. Alternative 2 and 4 will each provide two camping sites; and therefore, two land-based activities outputs.

Table 2-72 -- *Summary of Costs for North Shore*

Site	Total Costs	Incidental Losses	Total Average Annual
Alternative 1	\$556,901	\$0	\$74,370
Alternative 2	\$991,090	\$0	\$113,733
Alternative 3	\$349,181	\$0	\$54,911
Alternative 4	\$601,340	\$73,151	\$151,684

c. Acceptability Evaluation. For Alternative 4, the Tribal boat ramp is detached from the lands on which the land-based facilities are and will require transfer of two separate parcels of property. There is the potential of cross traffic at the boat launching facilities between the public and Tribal fishers. Neither of these conditions are desirable for a Treaty fishing access site or a public park. This would make management of both more difficult with the unnecessary congestion caused by the crossover of traffic from the two ramps.

Alternative 2 will provide better separation of incompatible uses than Alternatives 1. Refer to plate 24. The boat ramp is approximately 300 feet from the public ramp. However, Alternative 1 will have separate river access facilities and signing, handrails, stripping and landscaped barriers will also be included to provide further separation. This is considered adequate by the four Tribes, BIA and Corps. Alternative 1 has lower costs than Alternative 2.

Vehicular access will not be available for the legislated site, Alternative 3, and river access facilities are not included. The site will only be accessible by boat. Consequently, this is not a desirable alternative for implementation.

Alternative 1 will transfer a single parcel of land in providing Treaty fishing access. This alternative is the least costly for providing river access. The four Tribes, BIA, and the Corps support implementation of Alternative 1 for Northshore.

#### 2.8.10 LePage Treaty Fishing Access Site.

Three alternatives were considered for LePage. All three provide river access with various levels of land-based facilities. The river access features are on the legislated site. The legislated site that is outside of the highway right-of-way is small, narrow, and lies within the LePage Park administrated by the Corps.

a. Development Evaluation. Alternatives 2 and 3 are similar in level of development. Refer to table 2-29 and 2-30. They have identical river access items. Alternative 2 provides more land-based facilities including a potable water system, an additional vault toilet, a new shelter, 5 camping sites, 2 dumpster pads, and an irrigation system with landscaping. However, Alternative 3 does furnish more parking (23 versus 15, respectively) though they will have a gravel surface. It also has a fishing cleaning station.

Alternative 1 abandons any development of the bench overlooking the LePage Park from the west. The other two alternatives provide land-based facilities on this bench. Refer to table 2-28 and plate 27. Consequently, less land-based facilities will be furnished for Alternative 1. This alternative further differs from Alternative 2 in that a well and pumphouse, fish drying shed, new shelter and less landscaping are not included. Dredging of 4,400 yd<sup>3</sup> of in place fill will be required for last two alternatives.

Land-based facilities included in Alternative 1 but not Alternative 3 are a water system, five camping sites, 15 paved parking spaces instead of 23 graveled parking spaces, 2 dumpster pads and landscaping. Land-based facilities included in Alternative 3 but not Alternative 1 are a fish cleaning station and fish drying shed.

The impacts to the public by developing any of the three alternatives investigated for LePage is expected to be minor. No change in the average annual number of visitor days is anticipated at LePage Park. Tribal use of the existing LePage Park boat ramp and land-based facilities has had a recreation impact. Development of separate river access for the four Tribes will indeed improve conditions at the LePage Park for the public and Tribal fishers by providing conflict avoidance benefits. The park is generally at capacity throughout the summer.

b. Cost/Output Evaluation. Alternative 3 has the least total costs for the three alternatives (\$911,285) and the least total average costs (\$107,568). See table 2-71. But this alternative will not have any output for land-based facilities.

However, Alternative 1 has the next lowest costs (\$1,206,819) and total average annual (\$135,253). Both Alternative 1 and 2 will have land-based activities outputs of five as five camping sites are provided. All three alternatives will furnish river access, thus providing Tribal fishers with the opportunity to set, tend, and retrieve an estimated 84 nets in a normal week of fishing.

Table 2-73 -- *Summary of Costs for LePage*

Site	Total Costs	Total Average Annual
Alternative 1	\$1,206,819	\$135,253
Alternative 2	\$1,620,399	\$173,977
Alternative 3	\$911,285	\$107,568

c. Acceptability Evaluation. Alternative 3 provides river access comparable to the other two alternatives but has limited land-based facilities. This alternative does not provide camping sites, potable water, or landscaping. However, it does provide separation of incompatible uses equal to Alternative 2 and better than Alternative 1. Most of the land-based facilities are on the bench overlooking LePage Park from the west. Having the land-based facilities on the bench at a considerable distance from the boat ramp is not acceptable to the four Tribes or BIA. Furthermore, implementing either Alternative 2 or 3 will require transfer of two separate parcels of property.

Alternative 2 provides the most land-based facilities of the three alternatives and river access equal to the other two alternatives. However, the camping sites are on a bench overlooking the LePage Park approximately 800 feet from the Tribal boat ramp. This is unacceptable to the four Tribes and BIA.

Alternative 1 has all of the land-based facilities immediately adjacent to the Tribal ramp. The Tribes want the land-based facilities near the river access so this alternative is more acceptable to the Tribes. To accomplish this, a little less than a half acre of the parking area for the park will be used to develop camping sites for the four Tribes. The Corps supports including this half acre in the site for transfer to BIA. The four Tribes and BIA prefer the more compact Alternative 1 with less land-based facilities development.

#### 2.8.11 Goodnoe Treaty Fishing Access Site.

Three alternatives were considered for this site. None will provide river access and the land-based facilities are minimal. The Tribal use is low. The Tribes have indicated occasional use of the site by one or two groups.

a. Development Evaluation. Alternative 2 and 3 are similar in levels of development for land-based facilities. Refer to tables 2-32 and 2-33. Both include gravel surfacing for the access road from Pasture Point to Goodnoe. However, Alternative 2 furnishes more land-based facilities including three informal camping sites, two gravel parking areas and a dumpster pad.



Alternative 1 provides less land-based facilities than the other two alternatives. Refer to table 2-31. The only land-based facilities furnished for Alternative 1 are a vault toilet and two gravel parking areas. The access road will not be graveled but appears adequate for the anticipated use. Tribal members currently use the existing access road to reach Goodnoe.

b. Cost/Output Evaluation. Alternative 1 has the least total costs (\$146,874) and total average costs (\$23,759) of the three alternatives investigated. See table 2-74. This alternative will not have any output for land-based activities because camping will not be furnished. Alternative 3 also will not include camping; and consequently, will not have land-based activities output.

Alternative 3 which has the highest total costs (\$360,567) and total average annual (\$43,777), will furnish three camping sites and have a land-based activities output of three. None of the three alternatives will furnish river access; and therefore, will not have river access output.

Table 2-74 -- *Summary of Costs for Goodnoe*

Site	Total Costs	Total Average Annual
Alternative 1	\$146,874	\$23,759
Alternative 2	\$360,567	\$43,777
Alternative 3	\$350,140	\$42,801

c. Acceptability Evaluation. After consultation with the Tribes during their review of the draft phase two evaluation report the decision was made to provide minimum development at Goodnoe and Rock Creek while increasing the development at Pasture Point. Cost efficiencies in selecting alternatives for Goodnoe, Pasture Point and Rock Creek are summarized in table 2-85, Acceptability Evaluation (John Day Pool), in footnote, Combined Site Development. Alternative 1 is the result of this consultation and represents efficiencies in concentrating development of Treaty fishing access facilities in the area of greatest need. The Tribes, BIA, and the Corps support implementation of Alternative 1.

#### 2.8.12 Pasture Point Treaty Fishing Access Site.

Three alternatives were considered for Pasture Point. Each alternative represents a different level of development for the legislated site. Alternative 3 has the lowest level of development and Alternative 1 has the highest. All alternatives require a railroad crossing.

a. Development Evaluation. Alternative 1 and 2 include dredging (5,000 yd<sup>3</sup> and 4,500 yd<sup>3</sup>, respectively) for the river access. Alternative 1 and 2 are similar in levels of development but Alternative 1 provides more facilities including a groin, a well with pumphouse and water



system as opposed to a well with manual pump, and more camping sites (12 versus 5). Refer to tables 2-34 and 2-35. Less landscaping is included in Alternative 1 (seeding versus planting/topsoil).

Land-based facilities not included in Alternative 3, but included in the other two alternatives, are a new shelter and landscaping. Refer to table 2-36. However, more asphalt parking areas are included (26 versus 5) in Alternative 3.

b. Cost/Output Evaluation. Alternative 1 has the highest total costs for the three alternatives (\$3,464,236) and total average costs (\$346,725). See table 2-72. However, this alternative will have the highest output for land-based activities of 12, because 12 camping sites will be furnished. Alternative 2 will include five camping sites, therefore five land-based activities output.

Alternative 3 which has the lowest total costs (\$2,056,949) and total average annual costs (\$214,892), will not furnish any camping sites. All three alternatives will provide river access; and therefore, furnish Tribal fishers with the opportunity to set, tend, and retrieve an estimated 84 nets.

Table 2-75 -- *Summary of Costs for Pasture Point*

Site	Total Costs	Total Average Annual
Alternative 1	\$3,464,236	\$346,725
Alternative 2	\$2,876,171	\$291,636
Alternative 3	\$2,056,949	\$214,892

c. Acceptability Evaluation. At the May 11-14, 1993 conference with the four Tribes and BIA, both indicated a desire to have more land-based development at Pasture Point. Refer to Appendix C, Tribal Comments, Pasture Point. After further consultation, the land-based facilities development for Pasture Point was increased and is reflected in Alternative 1. River access for this reach of the river (Goodnoe, Pasture Point and Rock Creek) will be at Pasture Point; and consequently, much of the Tribal fishing activity will be at Pasture Point. It was not feasible to locate river access at either Goodnoe or Rock Creek. Alternative 1 also provides the highest land-based activities output which is 12.. Additionally, the intent was to reduce the development at Goodnoe and Rock Creek while increasing development at Pasture Point. Use at Goodnoe and Rock Creek are low and probably will not increase with the intense development at Pasture Point. Cost efficiencies in selecting alternatives for Goodnoe, Pasture Point and Rock Creek are summarized in table 2-85, Acceptability Evaluation (John Day Pool) in footnote, Combined Site Development.

The four Tribes and BIA support implementation of Alternative 1 for Pasture Point. The Corps also supports Alternative 1.

#### 2.8.13 Rock Creek Treaty Fishing Access Site.

None of the three investigated alternatives will provide river access but each does provide a different level of development for the land facilities, generally minimal facilities. As discussed in section 2.7.13 site conditions including periodic flooding, shallow water depths near shore and a gentle sloping river bottom preclude furnishing river access at Rock Creek. Also discussed earlier was the decision to provide minimum land-based development at Rock Creek and Goodnoe while expanding the land-based development at Pasture Point.

a. Development Evaluation. Alternative 2 and 3 are similar in levels of development for land-based facilities. Refer to table 2-38 and 2-39. Both include gravel surfacing for the access road from Pasture Point to Rock Creek and will furnish three informal camping sites. Alternative 2 also includes a dumpster pad.

Alternative 1 provides less land-based facilities than the other two alternatives. Refer to table 2-36. The land-based facilities furnished include a vault toilet and two gravel parking lots. The access road will not be graveled but appears satisfactory for the anticipated use. Tribal members currently use the existing access road to reach Rock Creek.

b. Cost/Output Evaluation. Alternative 1 has the least total costs (\$222,579) and total average costs (\$30,851) of the three alternatives investigated for Rock Creek. See table 2-76. However, this alternative will not have any output for land-based activities or river access. Camping and a boat ramp will not be furnished.

Alternative 2 and 3 will each furnish three camping sites thus providing three outputs for land-based activities. Like Alternative 1, neither will furnish river access and thus will not have outputs for river access.

Table 2-76 -- *Summary of Costs for Rock Creek*

Site	Total Costs	Total Average Annual
Alternative 1	\$222,579	\$30,851
Alternative 2	\$851,262	\$89,745
Alternative 3	\$851,258	\$89,745

c. Acceptability Evaluation. After consultation with the four Tribes and BIA, a decision has been made, to provide minimum land-based facilities at Rock Creek and Goodnoe while increasing the land-based development at Pasture Point (see section 2.8.12). Cost efficiencies

in selecting alternatives for Goodnoe, Pasture Point and Rock Creek are summarized in table 2-85, Acceptability Evaluation (John Day Pool) in footnote, Combined Site Development. Consequently, Alternative 1 is the result of this consultation process with the Tribes and represents efficiencies in concentrating development of Treaty fishing access facilities at Pasture Point. The Tribes, BIA and the Corps support implementation of Alternative 1 for Rock Creek.

#### 2.8.14 Sundale Treaty Fishing Access Site.

Three alternatives were considered, each with a different level of development. Each alternative includes the Sundale Park administered by the Corps for development.

a. Development Evaluation. Alternative 1 and 2 both provide river access and land-based facilities and are similar in levels of development. Refer to tables 2-40 and 2-41. Alternative 1 differs from Alternative 2 in the quantity of items including dredging (740 yd<sup>3</sup> versus 2,000 yd<sup>3</sup>, respectively), length of water system (500 lf versus 1,000 lf), camping sites (3 versus 6), topsoil (0 yd<sup>3</sup> versus 100 yd<sup>3</sup>) and asphalt (3,730 yd<sup>2</sup> versus 3,100 yd<sup>2</sup>).

Alternative 3 is also similar to Alternative 1 and 2 in that it will provide river access and land-based facilities. Refer to table 2-42. However, a dumpster pad, landscaping and outside lighting are not included in Alternative 3, but were included in Alternatives 1 and 2.

There will be impacts to the public by improving Sundale Park and designating the site as a Treaty fishing access site. These impacts are discussed in the Environmental Assessment and Appendix L (table L-4). A loss of 27,433 average annual visitor days are predicted with the transfer of Sundale Park to BIA.

b. Cost/Output Evaluation. Alternative 1 has the least total costs (\$863,298) and total average annual costs (\$710,245) of the three alternatives that include landscaping. See table 2-77. All three alternatives furnish river access providing Tribal fishers with the opportunity to set, tend, and retrieve an estimated 84 nets for a normal week of fishing. Alternative 1 will furnish three camping sites (outputs) for land-based activities. Alternatives 2 and 3 will each furnish six camping sites (outputs) for land-based activities.

Table 2-77 -- *Summary of Costs for Sundale*

Site	Total Costs	Incidental Losses	Total Average Annual
Alternative 1	\$863,298	\$607,172	\$710,245
Alternative 2	\$1,047,421	\$607,172	\$727,493
Alternative 3	\$771,399	\$607,172	\$701,636

c. Acceptability Evaluation. Other sites were investigated as discussed in section 2.7.14 to avoid transfer of Sundale Park. A cost-effective site was not identified. Therefore, development of a Sundale Treaty Fishing Access Site will require improvement and transfer of Sundale Park to BIA. In addition, developing a Treaty fishing access site at Sundale Park will result in the loss of public use of the park.

Sundale has the highest SLI (6,231) for the base condition. The base condition includes existing boat ramps, both treaty fishing access and in-lieu fishing sites, currently used by Tribal fishers. Refer to Appendix K, section 4.2.3 and table K-18 and K-19. The higher the SLI the more advantageous the site is for Treaty fishing.

Alternative 3 is not suitable for implementation since landscaping, outside lighting and a dumpster pad were not included. Public Law 100-581 includes landscaping as a development feature. The four Tribes and BIA have expressed a desire to have Sundale landscaped similar to other comparable Treaty fishing access sites. If these costs are included in Alternative 3, then Alternative 1 becomes the least-cost alternative.

Alternative 1 is the least-cost alternative with landscaping and will provide the full range of development appropriate for the site including river access and land-based facilities. Alternative 2 will provide the same levels of output but will be more costly if implemented. The four Tribes and BIA support Alternative 1 for Sundale. The Corps supports development and transfer of Sundale Park to BIA.

#### 2.8.15 Roosevelt Treaty Fishing Access Site.

Four alternatives were investigated for Roosevelt. All represent a different level of development at the same site which is on undeveloped federal land within Roosevelt Park. This federal land is upstream of the legislated site. See plates 42, 43 and 45. Each provides river access and land-based facilities.

a. Development Evaluation. Alternative 1 and 2 are similar, but differ in the level of land-based development. Refer to tables 2-43 and 2-44. Alternative 1 has less potable water line (500 lf versus 600 lf, respectively), topsoil (1,860 yd<sup>3</sup> versus 4,792 yd<sup>3</sup>) and asphalt paving (2,430 yd<sup>3</sup> versus 2,890 yd<sup>3</sup>). However, Alternative 1 has a larger irrigation system (50,250 ft<sup>2</sup> versus 43,560 ft<sup>2</sup>).

Alternative 3 is identical to Alternative 2 except a pressure sewer line has been included for disposal of site sewage. Refer to table 2-45. This line would extend to the city of Roosevelt's wastewater treatment plant or nearest trunk line. With this pressure line a restroom/shower building and fish cleaning station can be included in the land-based development. This would also eliminate the need for vault toilets. Alternative 3, like Alternative 2, will also differ from Alternative 1 as discussed in the preceding paragraph.



Alternative 4 provides a comparable level of river access and land-based development as the other three alternatives except: no landscaping is provided, informal camping is provided as opposed to formal camping, and 26 paved parking areas are furnished as opposed to eight. Refer to table 2-46.

The impacts to the public by developing a Treaty fishing access site at the alternative site will be minor even though the site is within Roosevelt Park. No increase or decrease in the average annual number of visitor days is anticipated at Roosevelt Park with this new site. Tribal use of the existing Roosevelt Park boat ramp and land-based facilities has had recreation impacts but there is no hard data. Developing of a separate Treaty fishing access site for the four Tribes will improve conditions for the public and Tribal fishers at Roosevelt Park.

c. Cost/Output Evaluation. Alternative 4 has the least total costs (\$917,313) and total average annual costs (\$114,690) of the four alternatives investigated for Roosevelt. See table 2-78. All four alternatives furnish river access thus each will provide Tribal fishers with the opportunity to set, tend, and retrieve an estimated 84 nets for a normal week of fishing. Hence each alternative will provide 84 river access outputs. Each will also furnish eight camping sites; and thus, eight outputs for land-based activities.

Table 2-78 -- *Summary of Costs for Roosevelt*

Site	Total Costs	Total Average Annual
Alternative 1	\$1,441,846	\$157,270
Alternative 2	\$1,719,217	\$183,254
Alternative 3	\$2,217,496	\$229,932
Alternative 4	\$917,313	\$114,690

c. Acceptability Evaluation. The alternative site identified for Roosevelt legislated site, is better suited to develop Treaty fishing access. As discussed in 2.7.15 the legislated site is mostly rock outcrop with high near vertical cliffs along the shore line. Furthermore, the southern portion of the parking area for Roosevelt Park is within the legislated site. The alternative location has an abandoned ferry landing with groin which will be utilized in developing the Treaty fishing access site and provide cost savings to the project. This alternative location also avoids impacts to the Roosevelt Park at considerable less costs.

Public Law 100-581 includes landscaping as a development feature. Alternative 4 will not provide a landscaped fishing access site comparable to the adjacent Roosevelt Park. This is not acceptable to the four Tribes and BIA, and has been reflected in their comments in Appendix C.



The pumping of on-site sewage to the city of Roosevelt for Alternative 3 is not cost effective considering the use of the site identified in section 2.1.2 (12 to 24 Tribal members); therefore, implementation of Alternative 3 is not appropriate. The site conditions (shallow soils and proximity to river shoreline) at Roosevelt will not permit development of a drainfield for proper sewage disposal generated on-site.

Alternative 1 is the least cost site that provides landscaping. This alternative also will provide the full range of development appropriate for the site including river access and land-based facilities.

The four Tribes and BIA support Alternative 1 for Roosevelt. The Corps also prefers implementation of Alternative 1 on undeveloped federal land upstream of the legislated site.

#### 2.8.16 Pine Creek Treaty Fishing Access Site.

Four alternatives were investigated for Pine Creek and all will require a new railroad crossing. Each represents a different level of development on the legislated site. Alternative 1 and 2 provide river access with minimum land-based facilities that will not include camping. Alternative 3 and 4 will not furnish river access but will provide minimum land-based facilities including camping.

a. Development Evaluation. Alternative 1 and 2 are similar in development, but differ in the land-based facilities. Both provide the same level of development for river access. Refer to tables 2-47 and 2-48. Alternative 1 has more paved parking areas (10 versus 2, respectively) and four acres of seeding. Alternative 2 has two informal camping sites, whereas alternative 1 will not provide any camping sites.

Alternative 3 provides more land-based facilities than Alternative 4 including two parking areas and a dumpster pad. Refer to table 2-49 and 3-50. Neither will have river access. Alternative 4 will have two informal camping sites and a vault toilet.

b. Cost/Output Evaluation. Alternative 4 has the least total costs (\$2,354,785) and total average annual costs (\$242,793) of the four alternatives investigated. See table 2-79. Neither Alternative 4 or 3 provide river access. Each will furnish two informal camping sites. Alternative 1 and 2 will furnish river access thus each will provide Tribal fishers with the opportunity to set, tend, and retrieve an estimated 84 nets for a normal week of fishing. Each will have 84 river access outputs. Since camping sites are not included in Alternative 1, there will not be land-based facility outputs. Alternative 2 will have two informal camping sites thus two land-based facility outputs.

Table 2-79 -- *Summary of Costs for Pine Creek*

Site	Total Costs	Total Average Annual
Alternative 1	\$3,640,138	\$363,204
Alternative 2	\$3,568,741	\$356,515
Alternative 3	\$2,357,681	\$243,065
Alternative 4	\$2,354,785	\$242,793

c. Acceptability Evaluation. At the May 11-14, 1993 conference with the four Tribes and BIA and subsequent consultation meetings, a need was identified to have greater efficiency in developing Pine Creek, Alderdale and Threemile Canyon. Refer to Appendix D, Corps of Engineers' Reply to Tribal Comments. These three sites are close together with Pine Creek at RM 250.2, Alderdale at RM 257.5 and Threemile Canyon at RM 255. Pine Creek and Alderdale are on the Washington shore and Threemile Canyon is on the Oregon shore. As discussed in section 2.7.16 and 2.1.2 (Pine Creek Treaty Fishing Access Site) site conditions at Pine Creek (the site is narrow and mostly rock outcrop) prevent developing land-based facilities at this location including camping, restroom/shower building and potable water. However, site conditions at Alderdale are more conducive to developing land-based facilities but less desirable for river access. Cost efficiencies in selecting alternative 1 for Pine Creek and Alderdale are summarized in table 2-85.

Additionally, Pine Creek has a site location index (SLI) of 91 and Alderdale has a SLI of 13. The SLI is discussed in Appendix K, Economic Report, section 4.2. The higher the SLI, the more favorable the Treaty fishing access site is. Consequently, there is more advantage in locating a boat ramp at Pine Creek rather than Alderdale.

Therefore, all parties agreed river access will be developed at Pine Creek and no river access at Alderdale. Additionally, no camping will be furnished at Pine Creek, while sufficient camping will be furnished at Alderdale to fulfill the requirements for both sites. Furthermore, full development, as appropriate for site conditions, will be provided at Threemile Canyon.

Alternatives 2, 3 and 4 furnish camping and, therefore, are not suitable for implementation. In addition, Alternatives 3 and 4 do not provide river access at Pine Creek.

Alternative 1 provides river access at Pine Creek with minimum land-based facilities including a vault toilet, ten paved parking areas and a dumpster pad. It is also the least-cost alternative furnishing river access as shown in table 2-79. The four Tribes, BIA, and the Corps support implementation of Alternative 1 for Pine Creek.

### 2.8.17 Threemile Canyon Treaty Fishing Access Site.

Four alternatives were investigated for Threemile Canyon and are on an embayment as described in section 2.1.2 (Threemile Canyon Treaty Fishing Access Site). All provide the full range of river access and land-based facilities appropriate for this site. Alternatives 1 and 2 are on a portion of the legislated site and abutting undeveloped federal land adjacent to Quesnel Park administered by the Corps. Alternative 3 is nearly 1,800 feet downstream from Quesnel Park near an existing armored gravel fill. Alternative 4 is nearly 400 feet downstream of Quesnel Park on undeveloped federal land. Refer to plates 48 through 51.

a. Development Evaluation. Alternatives 1 and 2 are very similar in levels of development. Refer table 2-51 and 2-50. Alternative 2 requires an extensive 15,000 yd<sup>3</sup> of in-water fill armored with 2,200 yd<sup>3</sup> of riprap to place the Treaty fishing access boat ramp downstream of the groin. For Alternative 1, the public boat ramp will be relocated upstream to provide sufficient area for a Treaty fishing boat ramp adjacent to the existing groin. An estimated 300 yd<sup>3</sup> of dredging is also required. The land-based facilities for these alternatives are essentially the same.

Alternative 3 also provides river access and will require 300 yd<sup>3</sup> of dredging to construct a boat ramp. Refer to table 2-53. This alternative differs from Alternatives 1 and 2 in that it furnishes fewer land-based facilities. There are fewer camping sites (four versus six sites, respectively), and paved parking areas (5 versus 8 parking areas). However, more landscaping is provided for Alternative 3 (plantings versus seeding). An access road (1,800 feet) is also necessary for Alternative 3.

Alternative 4 is the only alternative that will include a fish cleaning station and require a groin to protect the boat ramp and dock. Refer to table 2-54. Boat ramp construction will require an estimated 500 yd<sup>3</sup> of dredging. Like Alternative 3, it provides fewer camping sites (four versus six sites). However, it also furnishes considerably more parking areas with 26. The other alternatives furnish five or eight parking areas.

The impacts to the public by developing a Treaty fishing access site adjacent to Quesnel Park will be minor. No decrease in the average annual number of visitor days at Quesnel Park is anticipated with Alternatives 1, 2 and 4. However, Alternative 3 is expected to reduce average annual visitor days by 2,916. Providing separate Treaty fishing access for the Tribes will improve conditions for the public and Tribal fishers.

b. Cost/Output Evaluation. Alternative 1 has the lowest total costs (\$901,771) and total average annual costs (\$106,677) of the four alternatives investigated for Threemile Canyon. See table 2-80. All alternatives furnish river access providing Tribal fishers with the opportunity to set, tend, and retrieve an estimated 84 nets in a normal week of fishing (84 river access outputs). Alternatives 1 and 2 each will furnish six camping sites therefore six land-based facility outputs. Alternative 3 and 4 each will furnish four camping sites (four land-based facility outputs).

Table 2-80 -- *Summary of Costs for Threemile Canyon*

Site	Total Costs	Total Average Annual
Alternative 1	\$901,771	\$106,677
Alternative 2	\$1,996,210	\$209,203
Alternative 3	\$1,074,201	\$122,830
Alternative 4	\$2,937,948	\$297,423

c. Acceptability Evaluation. Alternative 4 includes more parking than the use at Threemile Canyon can justify. This alternative also requires a new groin that will have impacts to nearshore fish and wildlife habitat. However, Alternative 4 does separate incompatible uses by providing a Treaty fishing site 400 feet downstream of Quesnel Park.

Like Alternative 4, Alternative 3 separates incompatible uses by locating the Treaty fishing site downstream (1,800 ft), but requires construction of an access road of similar length. This will also increase the maintenance requirements costs.

Alternative 2 will have considerable impact to fish and wildlife habitat with the 15,000 yd<sup>3</sup> of in-water fill armored with 2,200 yd<sup>3</sup> of riprap. This construction is needed to protect the boat ramp from wave action and permit launching and retrieval of boats into the wind. The FWS is opposed to significant impacts to nearshore fish and wildlife habitat. Therefore, this alternative is not desirable.

Alternative 1 has fewer fish and wildlife impacts than Alternatives 2 and 4. It also will not require a 1,800-foot access road like Alternative 3. It will not provide open space between the Treaty fishing site and Quesnel Park, but will furnish separate facilities for Tribal fishers. However, Alternative 1 will have signing, handrails, stripping and landscaped barriers included to provide further separation. This is considered adequate for the Treaty fishing access site and Quesnel Park by the four Tribes, BIA, and Corps. Public use of the Quesnel Park is limited and conflicts between incompatible users have been minor. Alternative 1 is also the least-cost alternative and is one of the sites that provides the highest outputs. Alternative 1 is supported by the four Tribes, BIA, and the Corps. implementation.

#### 2.8.18 Alderdale Treaty Fishing Access Site.

Three alternatives representing different levels of development for the legislated site including Alderdale Park were investigated.



a. Development Evaluation. Neither Alternative 1 or 3 include river access (tables 2-55 and 2-57). Alternative 1 will furnish more land-based facilities including vault toilets (2 versus 1, respectively), camping sites (6 formal versus 2 informal), shelter (1 versus 0) and dumpster pad (1 versus 0). Alternative 1 will also be landscaped.

Alternative 2 will furnish river access including a groin, boat ramp and dock, and two paved parking areas (table 2-56). In comparison to Alternative 1, it provides no landscaping, less camping (2 versus 6) and no shelter. Alternative 2 also furnishes more or better land-based facilities than Alternative 3 including vault toilets (2 versus 1 toilet), camping sites, parking areas (2 versus 0 parking areas), a dumpster pad, and landscaping.

The impacts to the public of developing the Alderdale Treaty fishing site will be minor. However, development and transfer of Alderdale Park for Treaty fishing access is expected to eliminate 547 average annual visitor days.

b. Cost/Output Evaluation. Alternative 3 has the lowest total costs (\$623,317) and total average annual costs (\$80,592) of the three alternatives investigated for Alderdale. See table 2-81. Alternatives 1 and 3 will not furnish river access and, consequently, will not provide any river access outputs. Alternatives 1 and 3 each will furnish six and two camping sites (six and two land-based facility outputs).

Alternative 2 will furnish river access, thus providing Tribal fishers with the opportunity to set, tend, and retrieve an estimated 84 nets in a normal week of fishing (84 river access outputs). It will also furnish two camping sites (two land-based facility outputs).

Table 2-81 -- *Summary of Costs for Alderdale*

Site	Total Costs	Incidental Losses	Total Average Annual
Alternative 1	\$1,062,214	\$10,410	\$132,117
Alternative 2	\$3,474,584	\$10,410	\$358,105
Alternative 3	\$623,317	\$0	\$80,592

c. Acceptability Evaluation. As discussed in section 2.8.16, greater efficiency in development of Pine Creek and Alderdale was desired. Consequently, land-based facilities were to be provided at Alderdale and the river access was to be furnished at Pine Creek for this reach of the river, RM's 250.2 to 257.5. Cost efficiencies in selecting alternative 1 for Pine Creek, and Alderdale are summarized in table 2-85.

Therefore, Alternatives 2 and 3 are not suitable options for Alderdale. Alternative 2 includes river access that has been eliminated from consideration for this site; additionally, it does not have an appropriate level of land-based facilities, camping sites in particular. Alternative 3



will not provide sufficient land-based facilities for anticipated use even though it does not furnish river access. However, Alternative 1 will provide the adequate level of land-based development to meet anticipated use at Alderdale.

The four Tribes and BIA support implementation of Alternative 1 for Alderdale. The Corps also prefers development of Alternative 1 and the transfer of Alderdale Park.

#### 2.8.19 Crow Butte Treaty Fishing Access Site.

Four alternatives were considered for Crow Butte. Sites for these alternatives are on lands leased by the Washington State Parks Commission for Crow Butte Park.

Alternatives 1 and 2 are on the same location near the entrance to the Crow Butte Park. Alternatives 3 and 4 are at different locations adjacent to the park.

a. Development Evaluation. Alternatives 1 and 2 provide the full range of development, both river access and land-based facilities, appropriate for this site and represent different levels of development. Refer to tables 2-58 and 2-59. The primary difference between these alternatives is that a rubble mount breakwater was included in Alternative 2, as opposed to a floating breakwater for Alternative 1.

The major difference between Alternative 3 and the first two alternatives is that a groin is not required and an estimated 1,000 yd<sup>3</sup> of dredging is necessary to provide boat access at this location. Refer to table 2-60. Less asphalt pavement is also required for Alternative 3 (4,000 yd<sup>2</sup> versus 8,000 yd<sup>2</sup>, respectively).

Alternative 4 will not include landscaping or use the park facilities to provide potable/irrigation water or for disposal site sewage (table 2-61), but this alternative will include a well, pumphouse, water system, and drainfield. A rubble mount groin and an estimated 1,200 yd<sup>3</sup> of dredging are required to provide river access at this location. A rubble mount groin and dredging are also required for Alternative 2.

The impacts to the public by developing a Treaty fishing access site adjacent to Crow Butte Park will be minor. No decrease or increase in the average annual visitor days at the park is anticipated with Alternatives 1, 2, 3, or 4. Tribal use of the existing Crow Butte Park has had an impact, but there is no hard data. However, providing separate Treaty fishing access for the Tribes will improve conditions for the public and Tribal fishers.

c. Cost/Output Evaluation Alternative 3 has the lowest total costs (\$1,854,037) and total average annual costs (\$195,884) of the four alternatives investigated for Crow Butte. See table 2-82. All alternatives will furnish river access providing Tribal fishers with the opportunity to set, tend, and retrieve an estimated 84 nets in a normal week of fishing. Each alternative will furnish six camping sites (outputs).

Table 2-82 -- *Summary of Costs for Crow Butte*

Site	Total Costs	Total Average Annual
Alternative 1	\$3,283,279	\$329,774
Alternative 2	\$2,797,456	\$284,262
Alternative 3	\$1,854,037	\$195,884
Alternative 4	\$2,682,235	\$273,469

c. Acceptability Evaluation. Alternatives 3 and 4 are not supported by the Washington State Parks Commission. Alternative 3 will not provide the separation between the park river access facilities and the Treaty fishing access site desired by park management. The site for Alternative 4 was in the area where park officials had plans for future expansion.

The Washington State Parks Commission will support the site identified for Alternatives 1 and 2. This site is outside the gate near the entrance to the existing park, and the Commission has agreed this location will not interfere with park management. Alternative 1 is the least-cost alternative and has less environmental impact, with a floating breakwater instead of the rubble mount included in Alternative 2. Additional landscaping has been included in Alternative 1 to ensure appropriate separation between the park access road and the treaty fishing access site. This will also provide the proper screening desired by the Washington State Parks Commission and the four Tribes for the Crow Butte site.

The four Tribes, BIA, the Corps, and the Washington State Parks Commission support Alternative 1 for Crow Butte.

#### 2.8.20 Faler Road Treaty Fishing Access Site.

Both alternatives investigated are on the same site with different levels of development. The site is within the area leased from the Corps by the Boardman Park District.

a. Development Evaluation. Alternative 1 provides the full array of land-based facilities but will not furnish river access (table 2-62). Alternative 2 provides both river access and land-based facilities (table 2-63). Alternatives 1 and 2 differ in the quantity of materials provided including topsoil (3,630 versus 3,230, respectively), irrigation system (98,000 ft<sup>2</sup> and 87,120 ft<sup>2</sup>), and boundary fence (3,000 lf and 3,200 lf).

b. Cost/Output Evaluation. Alternative 1 has the lowest total costs (\$1,527,051) and total average annual costs (\$165,252) for the two Faler Road alternatives investigated. See table 2-83. It will not furnish river access and, consequently, will not provide any river access output. Alternative 2 will furnish river access, providing Tribal fishers with the opportunity to set, tend, and retrieve an estimated 84 nets in a normal week of fishing (84 river access outputs).

Both alternatives will each furnish 6 camping sites (6 land-based facility outputs).

Table 2-83 -- *Summary of Costs for Faler Road*

Site	Total Costs	Total Average Annual
Alternative 1	\$1,527,051	\$165,252
Alternative 2	\$4,534,384	\$446,976

c. Acceptability Evaluation. The access road and boat ramp included in Alternative 2 will have significant and extensive environmental impacts with the large in-water fill required to locate the ramp in sufficient water depth to off load and load boats (see sections 2.7.20). However, the Tribes have been assured, in discussions with the Boardman Park District, they will have continued use of the public ramp in Boardman Park. Therefore an expensive river access is not imperative at this location, and Alternative 1 will be adequate for Tribal use.

Neither Alternative 1 nor 2 is predicted to have public impacts. No decrease or increase in the average annual visitor days at the park is anticipated. However, developing a separate Treaty fishing access site will improve conditions for the public and Tribal fishers at Boardman Park. Cost efficiencies in selecting alternatives for Faler Road and Boardman are summarized in table 2-85, Acceptability Evaluation (John Day Pool) in footnote, Combined Site Development.

The four Tribes and BIA support implementation of Alternative 1 for Faler Road. The Boardman Park District and the Corps also endorse Alternative 1 for implementation.

#### 2.8.21 Boardman Treaty Fishing Access Site.

Two alternatives were investigated for Boardman. Each is at a different site and represents a different level of development.

a. Development Evaluation. Alternative 1 will not provide river access but will provide land-based facilities appropriate for the site. Refer to table 2-64. Alternative 2 will provide river access and land-based facilities. Refer to table 2-65. Both alternatives provide basically the same land-based facilities but differ in the item quantities. These difference are related to individual site conditions and location.

The difference between Alternatives 1 and 2 include the water system (700 lf versus 1,500 lf, respectively), sewer system (800 lf versus 1,500 lf), dumpster pads (2 versus 0), outside lighting (500 ft versus 1,000 ft), asphalt paving (1,700 yd<sup>2</sup> versus 5,800 yd<sup>2</sup>) and boundary fence (1,500 lf versus 2,500 lf). In addition, \$400,000 is estimated to compensate the city for either Alternative 1 or 2, and \$1,500,000 is estimated to relocate the city municipal water intake for Alternative 2.

b. Cost/Output Evaluation. Alternative 1 has the lowest total costs (\$1,066,329) and total average annual costs (\$122,092) for the two Boardman alternatives investigated (table 2-84). It will not furnish river access and, consequently, will not provide any river access output. Alternative 2 will furnish river access thus, providing Tribal fishers with the opportunity to set, tend, and retrieve an estimated 84 nets in a normal week of fishing. Each alternative will furnish 5 camping sites (outputs).

Table 2-84 -- *Summary of Costs for Boardman*

Site	Total Costs	Total Average Annual
Alternative 1	\$1,066,329	\$122,092
Alternative 2	\$5,908,778	\$575,727

c. Acceptability Evaluation. Neither alternative is acceptable to the city of Boardman. Development at either location will force the city to relocate a portion of its domestic water system, including the pumping station or the water intake. The four Tribes and BIA support not developing a Boardman Treaty Fishing Access Site. They have indicated development of the Faler Road Alternative 1 including assured use of the public boat ramp at Boardman Park, is sufficient for this reach of the river. While the Corps is not a participant in ensuring the Tribes access to the public boat ramp, the Corps supports a significant savings by project costs by having the Tribal fishers use the existing park ramp. Cost efficiencies in selecting alternatives for Faler Road and Boardman are summarized in table 2-85, Acceptability Evaluation (John Day Pool) in footnote, Combined Site Development.

#### 2.8.22 Acquisition Sites.

Only one alternative was considered for each of the six acquisition sites. Changes to the site boundaries and proposed development are likely. These sites must be purchased from willing sellers before further evaluations are deemed necessary.

### 2.9 Summary

Alternative 1 is the preferred alternative of those evaluated for each of the 20 sites (18 treaty fishing access and 2 in-lieu fishing sites) with proposed development in this report. The recommended plan for each site is Alternative 1 for each site evaluated. Table 2-85 summarizes the justification of the recommended plan.

Two sites, Boardman and Cliffs, are recommended to be removed from consideration as Treaty fishing access sites. Maryhill is recommended for replacement of Cliffs. There is no development proposed on Moonay and Alder Creek; however, there will be a land transfer for each site. Table 2-86 summarizes each site.

Table 2-85 Acceptability Evaluation Summaries for the Bonneville, The Dalles, and John Day Pools

ACCEPTABILITY EVALUATION ( Bonneville Pool)						
Site Name	Alternative	Construction Costs (\$)	Incidental Benefits or	Total Ave An Costs (\$)	Fulfills All Req'ts PL 100-581	Tribal Acceptability
Wind River	1	189,000	0	28,000	No (no boat ramp)	Yes
	2	1,067,000	0	263,000	Yes	No
Cooks Inlet	1	833,000	0	100,000	Yes	Yes
	2	716,000	0	89,000	No (use requirement)	No
Alternative 1 (bold) - Recommended Plan						
Least cost plan						
Comments						
Least cost alternative; full development of acquired site (Wind R.)						
Extensive dredging and significant environmental impact						
Tribes requested showers and additional dock						
Least cost but does not meet law re'qmts nor acceptable to Tribes						



Table 2-85 Acceptability Evaluation Summaries for the Bonneville, The Dalles, and John Day Pools

**ACCEPTABILITY EVALUATION (The Dalles Pool)**

Site Name	Alternative	Construction Costs (\$)	Incidental Benefits or Losses (\$)	Total Ave An Costs (\$)	Fulfills All Req'ts PL 100-581	Tribal Acceptability	Comments
<b>Avery</b>	1	<b>1,219,000</b>	<b>777,000</b>	<b>135,000</b>	No (no camping)	Yes	Least cost viable plan
	2	1,251,000	777,000	139,000	No (no camping)	No	Not least cost plan and not acceptable to Tribes
	3	0	0	0	No (no camping)	No	Not a viable alternative
	4	1,624,000	0	174,391	No (no camping)	No	Not possible to develop conventional boat ramp, under estimated costs
<b>Celilo</b>	1	<b>3,667,000</b>	<b>708,000*</b>	<b>367,000</b>	Yes	Yes	Least cost plan based on total ave ann; important to Tribes
	2	3,901,000	708,000*	388,000	Yes	No	Not least cost plan
	3	2,590,000	3,538,000	3,803,000	No (no camping)	No	Highest total ave. ann; poor separation; opposed by COE OP
	4	<b>2,066,000</b>	<b>354,000*</b>	<b>216,000</b>	No (no camping)	No	Least construction costs; no camping; limited separation
	5	3,541,000	708,000*	354,000	No (no landscaping)	No	Two groins and no landscaping
<b>Maryhill</b>	1	<b>2,633,000</b>	<b>0</b>	<b>269,000</b>	Yes	Yes	Least cost and acceptable to Tribes and Washington State Parks
	2	2,823,000	0	287,000	Yes	No	Not least cost
<b>Cliffs</b>	1	2,897,000	329,000	622,350	Yes	No	John Dam lock navigation channel impact; technical feasibility questionable
	2	3,034,000	329,000	635,000	No (no camping)	No	John Dam lock navigation channel impact; technical feasibility questionable
<b>Rufus</b>	1	<b>207,000</b>	<b>0</b>	<b>29,000</b>	No (no boat ramp)	Yes	Least cost & acceptable to Tribes; minimum fish & wildlife impacts
	2	262,000	0	37,000	No (no boat ramp)	No	Not least cost
	3	2,214,000	21,000	231,000	Yes	No	Significant fish & wildlife impacts; one groin
	4	2,598,000	0	265,000	No (no camping)	No	Significant fish & wildlife impacts; two groin
<b>Preachers Eddy</b>	1	<b>3,474,000</b>	<b>0</b>	<b>348,000</b>	No (no camping)	Yes	Least cost with landscaping
	2	3,485,000	0	349,000	No (no camping)	No	Not least cost
	3	<b>3,181,000</b>	<b>0</b>	<b>320,000</b>	No (no camp/landsc)	No	Least cost but does not provide landscaping; new groin

Alternative 1 (bold) - Recommended Plan  
Least cost plan

Combined Site Development	
Rufus/Preachers Eddy	Construct. Total Ave An
	Costs (\$) Costs (\$)
Total costs w/o combination	5,395,000 551,000
Total costs for selected combination	3,681,000 377,000

\* Incidental Benefits

Table 2-85 Acceptability Evaluation Summaries for the Bonneville, The Dalles, and John Day Pools

ACCEPTABILITY EVALUATION (John Day Pool)

Site Name	Alternative	Construction Costs (\$)	Incidental Benefits (\$)	Total Ave An Costs (\$)	Fulfills All Req'ts PL 100-581	Tribal Acceptability	Comments
North Shore	1	557,000	0	74,000	No (no camping)	Yes	Least cost with boat ramp
	2	977,000	0	114,000	Yes	No	Not least cost with boat ramp
	3	349,000	0	55,000	No (no boat ramp)	No	No vehicular access to the site and limited boat access
	4	601,000	73,000	79,000	Yes	No	Poor separation; transfer of two separate land parcels; management constr
LePage	1	1,207,000	0	135,000	Yes	Yes	Camping near boat ramp (Tribal request); acceptable to COE OP
	2	1,620,000	0	174,000	Yes	No	Not least cost with camping near boat ramp
	3	911,000	0	108,000	No (no camping)	No	No camping or landscaping
Goodnoe	1	147,000	0	24,000	No (no cam/boat)	Yes	Least cost; expanded development at Pasture Point
	2	360,000	0	44,000	No (no boat ramp)	NO	Not least cost
	3	377,000	0	45,000	No (no cam/boat)	NO	Not least cost
Pasture Point	1	3,464,000	0	347,000	Yes	Yes	Tribal request for full development; reduced Goodnoe & Rock Creek
	2	2,876,000	0	292,000	No (manual pump)	No	Development not acceptable to Tribes
	3	2,057,000	0	215,000	No (no landscaping)	No	Least cost but development not acceptable to Tribes
Rock Creek	1	223,000	0	31,000	No (no cam/boat)	Yes	Least cost; expanded development at Pasture Point
	2	851,000	0	90,000	No (no cam/boat ra	No	Not least cost
	3	851,000	0	90,000	No (no boat ramp)	No	Not least cost
Sundale	1	863,000	607,000	103,000	Yes	Yes	Least cost with landscaping; Tribes requested landscaping.
	2	1,047,000	607,000	120,000	Yes	No	Not least cost
	3	771,000	607,000	95,000	No (landscaping)	No	Least cost but does not include landscaping
Roosevelt	1	1,442,000	0	157,270	Yes	Yes	Least cost with landscaping; Tribes requested landscaping.
	2	1,719,000	0	183,000	Yes	No	Not least cost with landscaping
	3	2,217,000	0	230,000	Yes	No	Not least cost; includes pumping of sewage
	4	987,000	0	115,000	No (no landscaping)	No	Least cost but does not provide landscaping and informal camping
Mooney	1	26,000		NA	o (no development	Yes	Insufficient Federal lands for development
Pine Creek	1	3,640,000	0	363,000	No (no camping)	Yes	Least cost with river access and adequate parking; SLI=91
	2	3,569,000	0	356,515	No (limited parking)	No	River access but limited parking
	3	2,358,000	0	243,000	No (no boat ramp)	No	Not least cost and does not provide river access
	4	2,355,000	0	243,000	No (no boat ramp)	No	Least cost but does not provide river access
Threemile Cany	1	902,000	0	107,000	Yes	Yes	Least cost; less environmental impact
	2	1,996,000	0	209,000	Yes	No	Not least cost; greater environmental impact ( in-water fill)
	3	1,074,000	0	123,000	Yes	No	Not least cost; 1,800 ft of road construction
	4	2,938,000	0	297,000	Yes	No	Not least cost; greater environmental impact (groin)
Alderdale	1	1,062,000	10,000	112,000	No (no boat ramp)	Yes	Least cost with landscaping and adequate camping w/o boat ramp
	2	3,475,000	10,000	338,000	Yes	No	Not least cost; river access is to be provided at Pine Creek; SLI=13
	3	623,000	0	81,000	No (no boat ramp)	No	Least cost but does not provide adequate level of camping

Table 2-85 Acceptability Evaluation Summaries for the Bonneville, The Dalles, and John Day Pools

**ACCEPTABILITY EVALUATION (John Day Pool, cont'd)**

Site Name	Alternative	Construction Cost (\$)	Incidental Benefits or Losses (\$)	Total Ave An Costs (\$)	Fulfills All Req'ts PL 100-581	Tribal Acceptability	Comments
<b>Alder Creek</b>	<b>1</b>	<b>30,000</b>	<b>0</b>	<b>NA</b>	<b>No (no develop.)</b>	<b>Yes</b>	<b>Insufficient Federal lands for development</b>
<b>Crow Butte</b>	<b>1</b>	<b>3,283,000</b>	<b>0</b>	<b>330,000</b>	<b>Yes</b>	<b>Yes</b>	<b>Acceptable to Washington State Parks; additional landscaping</b>
	2	2,797,000	0	284,000	Yes	No	Acceptable to Wash. State Parks; needs more landscaping for separation
	3	1,854,000	0	196,000	Yes	No	Least cost but not acceptable to Washington State Parks
	4	2,709,000	0	273,000	Yes	No	Not acceptable to Wash. State Parks; greater environmental impact (groin)
<b>Faler Road</b>	<b>1</b>	<b>1,527,051</b>	<b>0</b>	<b>165,000</b>	<b>No (no boat ramp)</b>	<b>Yes</b>	<b>Least cost; acceptable to City of Boardman; use city park boat ramp</b>
	2	4,534,000	0	447,000	Yes	No	Not least cost
<b>Boardman</b>	<b>1</b>	<b>1,066,000</b>	<b>0</b>	<b>122,000</b>	<b>No (no boat ramp)</b>	<b>No</b>	<b>Not acceptable to City of Boardman; impact to domestic water system</b>
	2	5,909,000	0	576,000	Yes	No	Not acceptable to City of Boardman; impact to domestic water system

Alternative 1 (bold) - Recommended Plan  
Least cost plan

**Combined Site Development**

<b>Goodnoe/Pasture Point/Rock Creek</b>	Construct.	Total Ave An
	Costs (\$)	Costs (\$)
Total costs w/o combination	4,104,000	427,000
Total costs for selected combination	3,834,000	402,000
<b>Pine Creek/Alderdale</b>	Construct.	Total Ave An
	Costs (\$)	Costs (\$)
Total costs w/o combination	7,044,000	694,515
Total costs for selected combination	4,702,000	475,000
<b>Faler Road/Boardman</b>	Construct.	Total Ave An
	Costs (\$)	Costs (\$)
Total costs w/o combination	2,593,051	287,000
Total costs for selected combination	1,527,051	165,252

Table 2-86 -- Project Summary

Site	Location County/State	Site Type	Legal Basis	Recommended Action	Development Plan	Planning Report
<b>Legislative</b>						
Bonneville Area Office	Skamania, Washington	TFAS	401(a)	No Change	Partial/LB	Phase One
Celilo	Wasco, Oregon	TFAS	401(a)	Boundary	Full	Phase Two
Preachers Eddy	Sherman, Oregon	TFAS	401(a)	Boundary	Partial/RA	Phase Two
Roosevelt	Klickitat, Washington	TFAS	401(a)	Alternative	Full	Phase Two
Faler Road	Morrow, Oregon	TFAS	401(a)	Boundary	Partial/LB	Phase Two
<b>Boardman</b>	<b>Morrow, Oregon</b>	<b>TFAS</b>	<b>401(a)</b>	<b>Delete</b>	<b>None</b>	<b>Phase Two</b>
Rufus	Sherman, Oregon	TFAS	401(a)	No Change	Partial/LB	Phase Two
Avery	Klickitat, Washington	TFAS	401(a)	No Change	Partial/RA	Phase Two
Maryhill	Klickitat, Washington	TFAS	401(a)	Replaced	Full	Phase Two
<b>Cliffs</b>	<b>Klickitat, Washington</b>	<b>TFAS</b>	<b>401(a)</b>	<b>Delete</b>	<b>NA</b>	<b>Phase Two</b>
LePage	Sherman, Oregon	TFAS	401(a)	Boundary	Full	Phase Two
Sundale	Sherman, Oregon	TFAS	401(a)	Boundary	Full	Phase Two
North Shore	Klickitat, Washington	TFAS	401(a)	Alternative	Partial/RA	Phase Two
Goodnoe	Klickitat, Washington	TFAS	401(a)	Boundary	Partial/LB	Phase Two
Pasture Point	Klickitat, Washington	TFAS	401(a)	Boundary	Full	Phase Two
Rock Creek	Klickitat, Washington	TFAS	401(a)	Boundary	Partial/LB	Phase Two
Moonay	Klickitat, Washington	TFAS	401(a)	Boundary	None	Phase Two
Threemile Canyon	Morrow, Oregon	TFAS	401(a)	Boundary	Full	Phase Two
Alder Creek	Klickitat, Washington	TFAS	401(a)	Boundary	None	Phase Two
Crow Butte	Benton, Washington	TFAS	401(a)	Alternative	Full	Phase Two
Pine Creek	Klickitat, Washington	TFAS	401(a)	Boundary	Partial/LB	Phase Two
Alderdale	Klickitat, Washington	TFAS	401(a)	No change	Partial/RA	Phase Two
<b>In-lieu</b>						
Cascade Locks	Hood River, Oregon	In-lieu	401(b)(1)	No change	Rehabilitation	Phase One
Underwood	Skamania, Washington	In-lieu	401(b)(1)	No change	Rehabilitation	Phase One
Lone Pine	Wasco, Oregon	In-lieu	401(b)(1)	No change	Rehabilitation	Phase One
Wind River	Skamania, Washington	In-lieu	401(b)(1)	No change	Rehabilitation	Phase Two
Cooks Inlet	Skamania, Washington	In-lieu	401(b)(1)	No change	Rehabilitation	Phase Two
<b>Acquired</b>						
Lyle	Klickitat, Washington	Acquired	401(b)(3)	NA	Full	LA/Phase Two
Wind River	Skamania, Washington	Acquired	401(b)(3)	NA	Full	LA/Phase Two
Stanley Rock	Hood River, Oregon	Acquired	401(b)(3)	NA	Full	LA/Phase Two
White Salmon	Klickitat, Washington	Acquired	401(b)(3)	NA	Full	LA/Phase Two
Dallesport	Klickitat, Washington	Acquired	401(b)(3)	NA	Partial/RA	LA/Phase Two
Bingen	Klickitat, Washington	Acquired	401(b)(3)	NA	Partial/LB	LA/Phase Two
<p>TFAS - treaty fishing access site</p> <p>Acquired - treaty fishing access site to purchased on the Bonneville Pool</p> <p>401(a) - section in PL-100-581</p> <p>401(b)(1) - section in PL-100-581</p> <p>401(b)(3) - section in PL-100-581</p> <p>No Change - no change in legislative site location or boundary</p> <p>Boundary - change in boundary required</p> <p>Alternative - site relocation in proximity to legislative site</p> <p><b>Delete - removed from consideration as TFAS</b></p> <p>Replaced - exchanged Maryhill for Cliffs</p> <p>Partial/LB - development only includes land based facilities</p> <p>Partial/RA - development only includes river access facilities</p> <p>Full - development includes river access and land based facilities</p> <p>NA - not applicable</p> <p>None - no development but will include appropriate land transfer</p> <p>Rehabilitation - primarily includes restoring or replacing existing facilities</p> <p>Phase One - Final Phase One Evaluation Report/EA (October 1992)</p> <p>Phase Two - Draft Phase Two Evaluation Report/EA (January 1995)</p> <p>LA - (Land Acquisition) Final Land Acquisition Study/EA (July 1994)</p>						



### 3. IDENTIFIED PLAN

#### 3.1 General Design

The designs submitted in this report were developed to illustrate the Identified Plan for 19 Section 401.(a) Treaty fishing access sites, 2 in-lieu fishing sites and 6 acquisition sites (table 3-1). A baseline cost estimate and total project cost summaries are included in Appendix J, Cost Estimate, and Chapter 4, section 4.5, both of which are in October 1994 price levels.

The general design criteria for the conceptual designs are presented in Appendix B, Identified Plan. The first several pages of the Identified Plan discuss the design standards. The design philosophy was to develop facilities that were durable with minimum maintenance. The Treaty access sites are located along the Columbia River, where weather conditions are harsh with semi-arid conditions, high wind velocities and normally severe winters.

General design criteria developed for the Identified Plan and the *Working Document* are very similar and in some cases identical. In the Identified Plan, the general design criteria were created for the conceptual design and, therefore, is more site specific. But for the *Working Document*, the general design criteria were used to identify possible alternative river access sites for a number of the legislative Treaty fishing access sites.

A second major difference in the general design criteria for the *Working Document* is that there are two major categories, partial and full development. Partial development was considered to have low density use because physical aspects of the site limited the development of a potable water source and a boat ramp. Full development was considered to require facilities to accommodate high density use (Appendix A, Working Document Methodology).

Both sets of design criteria covered the following major categories and/or facilities: (1) railroad crossings, (2) highway access, (3) architectural features, (4) use of vegetation, (5) fencing (boundary definition), (6) access roads, (7) parking, (8) boat ramp, (9) boat dock, (10) potable water, (11) pump house, (12) power, (13) sanitary facilities, (14) camping areas, (15) fish cleaning stations, (16) fish drying sheds and (17) net repair areas.



Table 3-1 -- *Columbia River Treaty Fishing Access Sites (Phase One and Phase Two)*

SITE	TYPE	POOL	State	RM	ACRES	PLATE
Bonneville Area Office	Sect 401.(a)	Bonneville	WA	147.1	8.0	A*
Cascade Locks	In-Lieu	Bonneville	OR	148.5	1.5	B*
Underwood	In-Lieu	Bonneville	WA	168.0	5.0	C*
Lone Pine	In-Lieu	Bonneville	OR	191.5	9.0	D*
Celilo	Sect 401.(a)	The Dalles	OR	201.5	7.6	J
Preachers Eddy	Sect 401.(a)	The Dalles	OR	213.5	5	M
Roosevelt	Sect 401.(a)	John Day	WA	241.0	5	R
Faler Road	Sect 401.(a)	John Day	OR	267.5	6.9	Y
Avery	Sect 401.(a)	The Dalles	WA	197.4	3.1	I
Rufus	Sect 401.(a)	The Dalles	OR	212.4	2.5	L
Maryhill	Sect 401.(a)	The Dalles	WA	208.2	9.9	K
North Shore	Sect 401.(a)	John Day	WA	215.9	5.5	N
LePage	Sect 401.(a)	John Day	OR	217.8	1.9	O
Goodnoe	Sect 401.(a)	John Day	WA	225.4	5	P-1
Pasture Point	Sect 401.(a)	John Day	WA	226.5	53.4	P-2
Rock Creek	Sect 401.(a)	John Day	WA	227.5	5	P-3
Sundale	Sect 401.(a)	John Day	WA	236.2	5.3	Q
Moonay	Sect 401.(a)	John Day	WA	247.5	0.9	S
Pine Creek	Sect 401.(a)	John Day	WA	250.2	6.9	T
Threemile Canyon	Sect 401.(a)	John Day	OR	255.0	33.2	U
Alderdale	Sect 401.(a)	John Day	WA	257.5	8.6	V
Alder Creek	Sect 401.(a)	John Day	WA	258.0	2.6	W
Crow Butte	Sect 401.(a)	John Day	WA	262.0	21.7	X
Wind River	In-Lieu	Bonneville	WA	155.0	25.0	G
Cooks Inlet	In-Lieu	Bonneville	WA	162.0	2.9	H
Lyle	Acquisition	Bonneville	WA	180.7	4.8	A
Wind River	Acquisition	Bonneville	WA	154.7	41.0	B
Stanley Rock	Acquisition	Bonneville	OR	170.1	11.2	C
White Salmon	Acquisition	Bonneville	WA	169.5	20	D
Dallesport	Acquisition	Bonneville	WA	188.5	10	E
Bingen Boat Basin	Acquisition	Bonneville	WA	172.0	4	F

\* Located in Interim Phase One Evaluation Report

The multidisciplinary team used the criteria in Appendix B, Identified Plan, in the engineering narrative under the heading General Design Criteria, in formulating the site development plans. The engineering narrative in Appendix B also explains the design of general facilities in greater detail. The sites have sufficient acreage to provide Treaty fishing facilities required by law and regulation, except at Moonay and Alder Creek. The level of development at each site was aimed at fulfilling the anticipated use of the Tribal fishers. To determine the level of use at each site, resource management personnel conducted on-site interviews and field observations during the 1988 and 1989 Treaty fishing seasons. Management personnel recorded the number of Tribal members at each site, the number and size of Tribal groups, number of vehicles and vehicles with camping trailers, and commercial buyers at each site.

Information was formally solicited from each Tribe and the BIA on the facilities required by Tribal fishers at each site. Written responses on Phase One have been received from the Umatilla and Warm Springs Tribes, and verbal conversations have transpired between representatives from the Yakama and Nez Perce Tribes and the Corps on the identified site plans (see Phase One Report, Appendix C, Tribal Comments). Development for each site has been or will be modified per Tribal comments to the extent possible to accommodate Treaty fishing access and the associated fishing activities (Phase One and Two Report, Appendix D).

### **3.2 Development Plan**

The development plans for each site have been superimposed on photographic enlargements prepared from 1:24,000 aerial photographs taken in October 1989. Each plan displays the general location of a particular facility and is preliminary in nature. The drawings are based on limited surface reconnaissance and are not accurate for site-specific locations. Final design and location of facilities for each site will be developed in the engineering data report and during plans and specifications. Each plan includes a pertinent data table listing the state and county the site is in, the Columbia River mile location, and the site's estimated acreage.

Developments at each site are described below and are in response to the use as described in Section 2.1, except where development is limited by technical or physical restrictions. Where the four Tribes described use higher than field observations, sites were developed to use indicated by the Tribes.

The costs discussed per site are the total construction costs in October 1994 price levels. These costs are the same as those presented in table K-31, Appendix K. Washington state sales tax has not been included in these costs for the sites located on the Washington shore.

#### **3.2.1 Phase One Sites.**

For details on the Bonneville Area Office Treaty fishing access site, Cascade Locks, Underwood, and Lone Pine in-lieu fishing site see the Phase One Report.

### 3.2.2 Wind River In-Lieu Fishing Site.

Proposed features for this site are listed in table 3-2. This in-lieu fishing site has existed for more than 10 years, and no adjustment in the boundary is required. General cleanup of the site is proposed. A new vault toilet will replace the restroom. Four camping sites and a dumpster pad are proposed. The existing parking spaces are in good condition. See plate G in Appendix B.

Annual dredging will be required to maintain small boat access to the Columbia River. Sedimentation patterns in the area adjacent to the boat ramp indicate there is a river eddy, and sediment moving down river will continue to be deposited adjacent to the boat ramp. There is a large source of sediment immediately above the in-lieu site in the form of a river bar. As material is dredged, high river flows will move upstream bar sediments downstream and deposit it near the in-lieu site. Navigation below the site is questionable. Sediment has in-filled portions of the channel, and river bars are visible during low pool. Additional dredging would probably be required below the site to ensure Columbia River access for small boats; therefore, maintaining river access is not recommended. The estimated cost is \$154,000.

Table 3-2 -- *Proposed Development, Wind River In-Lieu Fishing Site*

<u>Item</u>	<u>Quantity</u>
Vault toilets . . . . .	2
Camping sites . . . . .	4
Parking spaces (gravel) . . . . .	6
Dumpster pads . . . . .	1
Seeding . . . . .	86,000 sf
Gravel surface . . . . .	1,910 sy
Site cleanup . . . . .	LS
Signs . . . . .	1

### 3.2.3 Cooks Inlet In-Lieu Fishing Site.

Cooks Inlet has also been a Tribal fishing site for more than 10 years. There are no plans to adjust the site boundary. Improvements are proposed for the dock, restrooms, water and chlorination system, power distribution system and lighting (table 3-3). The fish cleaning station will be replaced, and two dumpster pads will be provided. See plate H in Appendix B. The estimated cost for this site is \$1,010,000.

Table 3-3 -- *Proposed Development, Cooks Inlet In-Lieu Fishing Site*

<u>Item</u>	<u>Quantity</u>
Repair existing dock . . . . .	Lump sum
New dock . . . . .	1,060 lf
Dredging . . . . .	500 cy
Rehab pumphouse . . . . .	1
Water system . . . . .	1
Fish cleaning station . . . . .	1
Sewer system . . . . .	200 lf
Restroom/shower building (rehab) . . . . .	1
Parking spaces (gravel) . . . . .	Existing
Dumpster pads . . . . .	2
Site seeding . . . . .	86,000 sf
Outside lighting system . . . . .	1
Asphalt paving . . . . .	780 sy
Gravel surface . . . . .	1,500 sy
Site cleanup . . . . .	LS
Signs . . . . .	1

#### 3.2.4 Avery Treaty Fishing Access Site.

A slight boundary adjustment in the legislated site is required. An existing railroad crossing will be used for site access. Development is limited to river access with minimal upland support facilities. Improvements include upgrading existing facilities such as the vault toilets, parking lot, boat ramp and groin. Use does not warrant overnight camping and other support facilities (table 3-4). Since the site will not accommodate a drainfield, there will not be flush toilets, showers or a fish cleaning station. Development will result in loss of public use of the existing park. The proposed site is approximately 3.1 acres. See plate I in Appendix B. The estimated cost for this site is \$1,572,000.

Table 3-4 -- *Proposed Development, Avery Treaty Fishing Access Site*

<u>Item</u>	<u>Quantity</u>
Groin extension . . . . .	150 ft
Boat ramp . . . . .	1
Dock (new) . . . . .	1,100 sf
Dredging . . . . .	2,000 cy
Vault toilets . . . . .	1
Parking spaces (gravel) . . . . .	6
Dumpster pads . . . . .	1
Gravel surface . . . . .	2,670 sy
Seeding . . . . .	43,000 sf
Site cleanup . . . . .	Lump sum
Signs . . . . .	1

### 3.2.5 Celilo Treaty Fishing Access Site.

Proposals for this site are listed in table 3-5. The site appears to be suitable for full development, and the four Tribes have requested full development (see Phase One Report, Appendix C, pages C-14 and C-32, and Land Use). They indicated in their letter that use was high. The Treaty fishing use inventory conducted by the Corps indicates three to four camps or groups use this site approximately six months per year with four to six people per camp and four vehicles with boats and trailers. Hence, this site was developed to the same level as Celilo Park, an adjacent public park, and to a level sufficient to meet the identified Tribal fisher use. This included a paved access road, 15 paved parking spaces, and 5 camping sites to meet anticipated use. An irrigation system, lawn and plantings were also included to provide staging areas, shade and wind breaks. A change is proposed in the legislative boundary, with the concurrence of the four Tribes and BIA, to include sufficient area to develop a drainfield for the Treaty fishing access site. By including this drainfield, waste water could be properly processed, and flush toilets, showers and fish cleaning stations could be developed. For convenience, a vault toilet will be provided adjacent to the camping area. See plate J in Appendix B.

Approximately 7.6 acres are recommended for development on the proposed site. A portion of Celilo Park is included to provide sufficient area for a drainfield. The proposed site is a long narrow wedge that is bounded by Interstate 84 on the south, the Columbia River on the north and Celilo Park on the west. This is probably the maximum acreage that can be transferred without adverse impact to Celilo Park. The estimated cost for this site is \$3,649,000.



### 3.2.6 Maryhill Treaty Fishing Access Site.

Legislative approval is required for this proposed site. This site would have to be added to the list of Treaty fishing access sites in exchange for the Cliffs site, which would be deleted as a potential site. The proposed site occupies the west portion of the existing Maryhill State Park. Proposed features are shown in table 3-6. Development would provide river access along with a wide range of fishing support facilities. This site will be developed to the same level as the adjacent park. This includes a two-way access road, 15 paved parking spaces, 4 camping sites, a net repair area, a fish drying shed, shelters, boat ramp, groin, and a dock to accommodate the observed use. The site will accommodate a drainfield; therefore, flush toilets, showers and a fish cleaning station will be provided. See plate K in Appendix B. The proposed site is about 9.9 acres, and the estimated construction cost is \$4,386,000.

Table 3-5 -- *Proposed Development, Celilo Treaty Fishing Access Site*

<u>Item</u>	<u>Quantity</u>
Groin . . . . .	1
Boat ramp . . . . .	1
Docks . . . . .	1,050 sf
Dredging . . . . .	1,500 cy
Well and pumphouse . . . . .	1
Water system . . . . .	1
Net repair area . . . . .	1
Fish drying shed . . . . .	1
Fish cleaning station . . . . .	1
Sewer system . . . . .	1,600 sf
Vault toilets . . . . .	1
Gray Water Disposal . . . . .	1
Restroom/shower building . . . . .	1
Camping sites . . . . .	5
Parking spaces (paved) . . . . .	15
Dumpster pads . . . . .	4
Planting . . . . .	Several
Topsoil . . . . .	2,400 cy
Irrigation system . . . . .	110,000 sf
Seeding . . . . .	86,000 sf
Outside lighting system . . . . .	1
Asphalt paving . . . . .	5,400 sy
Boundary fence . . . . .	2,100 lf
Site cleanup . . . . .	LS
Signs . . . . .	1

Table 3-6 -- *Proposed Development, Maryhill Treaty Fishing Access Site*

<u>Item</u>	<u>Quantity</u>
Groin .....	1
Boat ramp .....	1
Dock .....	1,100 sf
Dredging .....	500 cy
Well and pumphouse .....	1
Water system .....	1,400 lf
Net repair area .....	1
Fish drying shed .....	1
Fish cleaning station .....	1
Sewer system .....	1
Gray Water Disposal .....	1
Restroom/shower building .....	1
Camping sites .....	4
Parking spaces (paved) .....	15
Dumpster pads .....	2
Planting .....	Several
Topsoil .....	51,000 sf
Irrigation system .....	51,000 sf
Seeding .....	86,000 sf
New shelters .....	2
Outside lighting system .....	1
Boundary fence .....	2,800 lf
Asphalt paving .....	3,500 sy
Site cleanup .....	LS
Signs .....	1

### 3.2.7 Rufus Treaty Fishing Access Site.

A boundary adjustment in the legislated site is not required for this site. Development will focus on minimum use without river access. The waters offshore are too shallow for developing a boat ramp, and the shallow water has high habitat value. River access facilities will be provided at Preachers Eddy site just upstream of this area. This site will include off-road parking and a vault toilet (table 3-7). Overnight camping, fish cleaning facilities, and other support facilities will not be available. See plate L in Appendix B. The proposed site is approximately 2.5 acres, and the estimated cost is \$195,000.

Table 3-7 -- *Proposed Development, Rufus Treaty Fishing Access Site*

<u>Item</u>	<u>Quantity</u>
Vault toilets . . . . .	1
Parking areas (paved) . . . . .	2
Dumpster pads . . . . .	1
Site seeding . . . . .	21,500 sf
Asphalt paving . . . . .	500 sy
Site cleanup . . . . .	LS
Signs . . . . .	1

### 3.2.8 Preachers Eddy Treaty Fishing Access Site.

Upland development will not provide camping. Adequate but modest facilities for river access are included for development (table 3-8). Potable water and a drainfield will not be provided; therefore, flush toilets, showers and a fish cleaning station will not be provided. As proposed, the plan recommends adjustments in the legislative boundary to avoid impacts at the facilities for the Giles French Park, a public park. Facilities to the same level as the adjacent park will be provided. Development is intended to provide a separation between Tribal fishers and the public by using vegetative screening, fencing and/or earth berms. See plate M in Appendix B.

The proposed site, approximately 5.0 acres, is a long narrow wedge that is bounded by a frontage road on the south, the Columbia River on the north and Giles French Park on the east. This is probably the maximum acreage that can be transferred without adverse impacts to Giles French Park. The estimated cost for this site is \$2,100,000.

### 3.2.9 North Shore Treaty Fishing Access Site.

Legislative approval is required for this proposal. The legislated site is east of the Railroad Island Park on the same embayment separated from the Columbia River by the railroad. The proposed site adjacent to the west side of the existing park and on the same embayment. Development will provide river access and a modest amount of support facilities, including four gravel parking spaces, a vault toilet and a dumpster pad (table 3-9). Since the site will not accommodate a drainfield, there will not be flush toilets, showers or a fish cleaning station. Maryhill is just downstream and has overnight facilities. The groundwater is being studied for the presence of heavy metal contaminants from an adjacent aluminum plant. If groundwater contamination is confirmed, the site may have to be removed from those available for Treaty fishing access. See plate N in Appendix B. The site is approximately 5.5 acres, and the estimated cost is \$521,000.

Table 3-8 -- *Proposed Development, Preachers Eddy Treaty Fishing Access Site*

<u>Item</u>	<u>Quantity</u>
Groin extension . . . . .	200 lf
Boat ramp . . . . .	2
Docks . . . . .	1,050 sf
Well and pumphouse . . . . .	1
Parking spaces (paved) . . . . .	12
Dumpster pads . . . . .	2
Planting . . . . .	Several
Topsoil . . . . .	800 cy
Irrigation system . . . . .	43,000 sf
Seeding . . . . .	86,000 sf
Vault toilet . . . . .	1
Outside lighting . . . . .	Lump sum
Asphalt paving . . . . .	4,260 sy
Boundary fence . . . . .	1,500 lf
Site cleanup . . . . .	LS
Signs . . . . .	1

Table 3-9 -- *Proposed Development, North Shore Treaty Fishing Access Site*

<u>Item</u>	<u>Quantity</u>
Boat ramp . . . . .	1
Dock (new) . . . . .	1,300 sf
Vault toilet . . . . .	1
Parking spaces (gravel) . . . . .	4
Dumpster pads . . . . .	1
Seeding . . . . .	21,000 lf
Gravel surfacing . . . . .	550 sy
Boundary fence . . . . .	1,100 lf
Site cleanup . . . . .	LS
Signs . . . . .	1

### 3.2.10 LePage Treaty Fishing Access Site.

A boundary adjustment in the legislated site is required for this proposal. Located on the north side of the existing LePage Park, the legislated site is adequate for development of river access facilities such as a boat ramp, dock, a net repair area, and 15 parking spaces, but additional land is required to provide camping. Approximately, 0.5 acres of the LePage parking lot will be developed for camping. This would include five camping

areas, two vault toilets, a net repair area, and two dumpster pads. The site will not accommodate a drainfield; therefore, flush toilets, showers, and a fish cleaning station will not be provided. Proposed features are shown in table 3-10. See plate O in Appendix B. The proposed site is approximately 2.7 acres. The estimated cost for this site is \$1,585,000.

Table 3-10 -- *Proposed Development, LePage Treaty Fishing Access Site*

<u>Item</u>	<u>Quantity</u>
Boat ramp .....	1
Dock (new) .....	1,100 sf
Water system .....	1,100 lf
Net repair area .....	1
Vault toilets .....	1
Camping sites .....	5
Parking spaces (paved) .....	15
Dumpster pads .....	1
Planting .....	Several
Topsoil .....	2,700 sf
Irrigation system .....	26,000 sf
Seeding .....	86,000 sf
Outside lighting system .....	1
Asphalt paving .....	1,700 sy
Gravel .....	7,000 sy
Boundary fence .....	1,800 lf
Site cleanup .....	Lump Sum
Signs .....	1

### 3.2.11 Goodnoe Treaty Fishing Access Site.

A boundary adjustment in the legislated site is required for this proposal. The proposed site is upstream from the legislated site which falls within the railroad right-of-way. Proposed features are shown in table 3-11. Development includes two parking areas and a vault toilet to accommodate the observed use. Access to this site will be from SR 14, through Pasture Point and then down an existing road. A new railroad crossing will be constructed near the Pasture Point site and used to access Goodnoe, Pasture Point and Rock Creek. Overnight camping, fish cleaning facilities, and other support facilities will not be available because this site is intended for minimal use only. Pasture Point site, one mile upstream, will be developed with camping and fishing support facilities. See plate P-1 in Appendix B. The proposed site is approximately 5.0 acres, and the estimated cost is \$101,000.



Table 3-11 -- *Proposed Development, Goodnoe Treaty Fishing Access Site*

<u>Item</u>	<u>Quantity</u>
Vault toilet .....	1
Parking areas (gravel) .....	2
Gravel .....	570 sy
Site cleanup .....	LS

### 3.2.12 Pasture Point Treaty Fishing Access Site.

A boundary adjustment in the legislated site is required for this proposal. The proposed site is continuous from Goodnoe, downstream, to Rock Creek, upstream. Proposed features are shown in table 3-12. An existing gravel road and new railroad crossing will be used to access the site, as well as Goodnoe and Rock Creek. The development includes a gravel access road, 8 paved parking spaces, a boat ramp, a fish drying shed, a net repair area, 2 vault toilets, and 12 camping sites to accommodate the anticipated use. Roads around the camping areas and the fish drying shed will be paved to control dust. The proposed site is approximately 53.4 acres. See plate P-2 in Appendix B. The estimated cost for this site is \$4,697,000.

Table 3-12 -- *Proposed Development, Pasture Point Treaty Fishing Access Site*

<u>Item</u>	<u>Quantity</u>
Groin .....	1
Boat ramp .....	1
Dock (new) .....	1,300 sf
Dredging .....	5,000 cy
Well and pumphouse .....	1
Water system .....	1,300 lf
Net repair area .....	1
Fish drying shed .....	1
Vault toilets .....	2
Camping sites .....	12
Parking spaces (paved) .....	8
Dumpster pads .....	1
New shelter .....	1
Seeding .....	172,000 sf
Outside lighting .....	1
Railroad crossing .....	1
Asphalt pavement .....	7,270 sy
Gravel surface .....	9,980 sy
Boundary fence .....	1,900 lf
Site cleanup .....	LS
Signs .....	1

### 3.2.13 Rock Creek Treaty Fishing Access Site.

A boundary adjustment in the legislated site is required for this proposal. The legislated boundary will be modified to exclude the northern portion, which lies in the railroad right-of-way. Proposed features are shown in table 3-13. The site will use the access and railroad crossing for Pasture Point. Development includes two parking areas and a vault toilet to accommodate the observed use. Overnight camping, fish cleaning facilities, and other support facilities will not be available. Pasture Point, one mile downstream, will be developed with camping and fishing support facilities. See plate P-3 in Appendix for the Rock Creek development plan. The proposed site is about 5.0 acres, and the estimated cost is \$146,000.

Table 3-13 -- *Proposed Development, Rock Creek Treaty Fishing Access Site*

<u>Item</u>	<u>Quantity</u>
Vault toilets .....	1
Parking areas (gravel) .....	2
Gravel surface .....	500 sy
Site cleanup .....	Lump sum

### 3.2.14 Sundale Treaty Fishing Access Site.

A boundary adjustment in the legislated site is required for this proposal. The legislated site will be modified to exclude privately owned land to the northwest and to exclude the southern portion, which falls within the railroad right-of-way. Development will include a paved access road, paved parking spaces, a revamped boat ramp, and camping sites (table 3-14). This site is on an embayment contained by Burlington Northern Railroad. Access to the Columbia River is through a boat channel that crosses under the railroad. There is no boat access below minimum pool. The site will not accommodate a drainfield; therefore, restroom/showers and a fish cleaning station will not be provided. Development will result in loss of public use of the existing park. See plate Q in Appendix B. The proposed site is approximately 5.3 acres, and the estimated cost is \$1,531,000.

### 3.2.15 Roosevelt Treaty Fishing Access Site.

Legislative approval required for this proposal. The site was impractical to develop because of steep topography. A portion of Roosevelt Park, a public park, is also within the legislated site and creates an undesirable overlap of public and Tribal use. A suitable site was found adjacent to Roosevelt Park on undeveloped federal land approximately 900 feet upstream of the legislated site. Development will take advantage of an abandoned ferry slip and recreation area to develop a boat ramp (table 3-15). Development will be comparable to that at Roosevelt Park. This includes a paved access road, eight paved parking spaces, eight camping sites, and an irrigation system. The lawn and plantings will

provide staging areas, shade, and wind breaks. Imported topsoil will provide adequate bedding for grass and plants. The site will not accommodate a drainfield; therefore, restroom/showers and a fish cleaning station will not be provided. See plate R in Appendix B.

Table 3-14 -- *Proposed Development, Sundale Treaty Fishing Access Site*

<u>Item</u>	<u>Quantity</u>
Boat ramp . . . . .	1
Dock . . . . .	800 sf
Dredging . . . . .	5,500 cy
Well and new pumphouse . . . . .	1
Water system . . . . .	500 lf
Net repair area . . . . .	1
Fish drying shed . . . . .	1
Vault toilets . . . . .	1
Camping sites . . . . .	3
Parking spaces (paved) . . . . .	8
Dumpster pads . . . . .	1
Planting . . . . .	Several
Seeding . . . . .	43,000 sf
Outside lighting system . . . . .	1
Asphalt overlay . . . . .	3,730 sy
Boundary fence . . . . .	1,700 lf
Site cleanup . . . . .	LS
Signs . . . . .	1

Table 3-15 -- *Proposed Development, Roosevelt Treaty Fishing Access Site*

<u>Item</u>	<u>Quantity</u>
Boat ramp . . . . .	1
Docks . . . . .	1,050 sf
Well and pumphouse . . . . .	1
Water system . . . . .	800 lf
Net repair area . . . . .	1
Fish drying shed . . . . .	1
Vault toilets . . . . .	2
Camping sites . . . . .	8
Parking spaces (paved) . . . . .	8
Dumpster pads . . . . .	2
Planting . . . . .	Several
Topsoil . . . . .	1,860 cy
Irrigation system . . . . .	50,250 sf
Seeding . . . . .	86,000 sf
Outside lighting system . . . . .	LS
Asphalt paving . . . . .	2,430 sy
Boundary fence . . . . .	1,200 lf
Site cleanup . . . . .	Lump sum
Signs . . . . .	1

This proposed site is approximately 5.0 acres. The area is bounded by Columbia River waters on the north and south, with boat launching facilities and other Roosevelt Park facilities to the west and east, respectively. This also is probably the maximum acreage available for transfer without impacting Roosevelt Park. The estimated cost for this site is \$1,630,000.

### 3.2.16 Moonay Treaty Fishing Access Site.

Most of the site lies within the railroad right-of-way. The portion outside the right-of-way is not large enough to develop, and there is no adjacent federal land for expansion of the site. No features are proposed. The site boundary will be adjusted and the site transferred to BIA. See plate State in Appendix B. The proposed site is approximately 0.9 acres, and the estimated cost is \$26,000.

### 3.2.17 Pine Creek Treaty Fishing Access Site.

A boundary adjustment in the legislated site is required for this proposal. The legislated boundary will be expanded upstream and downstream and modified to stay out of the railroad right-of-way. Development will include a railroad crossing, a two-way access road, parking spaces, and a boat ramp (table 3-16) No camping facilities will be provided as the site is intended for river access. Other fishing support facilities will not be available. See plate T in Appendix B. The proposed site is approximately 6.9 acres. The estimated cost for this site is \$4,926,000.

Table 3-16 -- *Proposed Development, Pine Creek Treaty Fishing Access Site*

<u>Item</u>	<u>Quantity</u>
Groin .....	1
Boat ramp .....	1
Dock .....	1,300 sf
Vault toilet .....	2
Parking spaces (paved) .....	10
Dumpster pads .....	1
Railroad crossing .....	1
Seeding .....	168,000 sf
Asphalt pavement .....	6,100 sy
Boundary fence .....	1,600 lf
Site cleanup .....	LS
Signs .....	1

### 3.2.18 Threemile Canyon Treaty Fishing Access Site.

A boundary adjustment in the legislated site is required for this proposal. The legislative boundary has been modified to include more upland, allowing camping and fishing support facilities to be developed. Proposed features are shown in table 3-17. Development will include a two-way access road, parking spaces, a boat ramp, and camping facilities. A net repair area and fish drying shed will be developed to support fishing. Lack of potable water and inadequate sewer systems preclude development of a fish cleaning station. See plate U in Appendix B. The proposed site is approximately 33.2 acres, and the estimated cost is \$1,512,000.



Table 3-17 -- *Proposed Development, Threemile Canyon Fishing Access Site*

<u>Item</u>	<u>Quantity</u>
Boat ramp . . . . .	1
Dock . . . . .	2,600 sf
Net repair area . . . . .	1
Fish drying shed . . . . .	1
Vault toilets . . . . .	2
Camping sites . . . . .	6
Parking spaces (paved) . . . . .	8
Dumpster pads . . . . .	1
New shelter . . . . .	1
Seeding . . . . .	172,000 sf
Asphalt pavement . . . . .	2,860 sy
Boundary fence . . . . .	3,700 lf
Site cleanup . . . . .	LS
Signs . . . . .	1

Table 3-18 -- *Proposed Development, Alderdale Treaty Fishing Access Site*

<u>Item</u>	<u>Quantity</u>
Dumpster pads . . . . .	1
Well and manual pump . . . . .	1
Water system . . . . .	600 lf
Boundary fence . . . . .	2,300 lf
Camping sites . . . . .	6
Shelter . . . . .	1
Vault toilets . . . . .	2
Planting . . . . .	Several
Seeding . . . . .	168,000 sf
Asphalt pavement . . . . .	4,800 sy
Site cleanup . . . . .	LS
Signs . . . . .	1

3.2.19 Alderdale Treaty Fishing Access Site. No boundary adjustment in the legislated site is required for this proposal. Proposed features are shown in table 3-18. Development will include an access road, vault toilets, a shelter, and camping sites. Use did not warrant development of a net repair area, fish drying shed, or fish cleaning station. No other support facilities will be available. Development will result in loss of public use of the existing park. See plate V in Appendix B. The estimated cost for this site is \$1,277,000.

### 3.2.20 Alder Creek Treaty Fishing Access Site.

Most of the site lies within the railroad right-of-way. The portion outside the right-of-way is not large enough to develop. As a result, there are no proposed features. The legislated site boundary will be adjusted and transferred to BIA. See plate W in Appendix B. This site is approximately 2.5 acres, and the estimated cost is \$30,000.

### 3.2.21 Crow Butte Treaty Fishing Access Site.

A boundary adjustment in the legislated site is required for this proposal. The legislated site is one mile downstream from the proposed site, which is north of the existing Crow Butte State Park. Relocation of the site allows use of an existing inlet and the opportunity to connect into existing utilities at the adjacent State Park. The final site selection just west of a causeway (raised road) was reviewed with park officials and found acceptable to the Washington State Park Commission. Proposed features are shown in table 3-19. Development will include an access road, parking spaces, a boat ramp, a restroom/shower building, and camping sites. Other support facilities such as shelters, a fish drying shed, a fish cleaning station, and net repair areas will be available. This site will receive full development to the same level as the adjacent park. See plate X in Appendix B. The proposed site is approximately 21.7 acres, and the estimated cost is \$3,740,000.

### 3.2.22 Faler Road Treaty Fishing Access Site.

Proposed features are shown in table 3-20. A modification of the legislated site boundary is required for this proposed plan. The proposed site is on undeveloped federal land but impacts the Boardman Park District recreational lease. The Park District has agreed to modify the lease. This site is developed to the same level as Boardman Park, an adjacent public park, and to a level sufficient to meet the identified Tribal fisher use. This includes a paved access road, eight paved parking spaces and six camping sites. Plantings were also included to provide screening, shade and wind breaks. Adjacent city utilities will be used, allowing development of a restroom/shower building and a fish cleaning station. Shallow water and fish and wildlife concerns will not allow development of a boat ramp. See plate Y in Appendix B.

The proposed site, approximately 6.9 acres, would require modification to the recreational lease with Boardman Park District and a legislative amendment. All parties (City of Boardman, four Tribes and the Corps of Engineers) are in agreement with the identified site, whose estimated cost is \$1,721,000.

Table 3-19 -- *Proposed Development, Crow Butte Treaty Fishing Access Site*

<u>Item</u>	<u>Quantity</u>
Groin .....	1
Boat ramp .....	1
Dock (new) .....	1,300 sf
Water system .....	1
Net repair area .....	1
Fish drying shed .....	1
Fish cleaning station .....	1
Sewer system .....	1
Restroom/shower building .....	1
Camping sites .....	6
Parking spaces (paved) .....	6
Dumpster pads .....	1
New shelter .....	2
Planting .....	Several
Topsoil : .....	3,330 cy
Irrigation system .....	90,000 sf
Seeding .....	172,000 sf
Outside lighting system .....	1
Asphalt pavement .....	8,000 sy
Boundary fence .....	3,200 lf
Site cleanup .....	LS
Signs .....	1]

Table 3-20 -- *Proposed Development, Faler Road Treaty Fishing Access Site*

<u>Item</u>	<u>Quantity</u>
Water system .....	1
Net repair area .....	1
Fish drying shed .....	1
Fish cleaning station .....	1
Sewer system .....	1
Restroom/shower building .....	1
Camping sites .....	6
Parking spaces (paved) .....	8
Dumpster pads .....	2
Planting .....	Several
Topsoil .....	1,330 cy
Irrigation system .....	36,000 sf
Seeding .....	172,000 sf
Outside lighting system .....	2,000 lf
Asphalt paving .....	2,200 sy
Boundary fence .....	2,200 lf
Site cleanup .....	LS
Signs .....	1

### 3.2.23 Acquisition Sites 1 through 6.

Specific development and associated costs depend on the specific sites acquired to fulfill the requirements of P.L. 100-581. The details for acquisition site selection are found in a Land Acquisition Study Report. The level of development and associated costs is based on the acquisition of the most likely sites, identified in Section 2.7.23, Acquisition Sites, from willing sellers.

a. Lyle Site. Proposed features are shown in table 3-21 and plate A of Appendix B. The property necessary for upland development (approximately 3 acres) on this site is for sale by the current property owner for development of Treaty fishing access. This property is identified as lots 16 and 17 on a plat map, Klickitat Landing (P-93-01, Section 3 T.2 N., R.12 E., W.M.).

The property required for river access has also been identified on the site development plan, but a negotiated settlement is necessary to obtain exclusive river access for the four Tribes on the Lyle Landing Road/ferry landing. This process will be initiated during acquisition and proceed concurrently with purchase of the site. Several preliminary discussions have occurred with parties that have a vested interest.

Adjacent city utilities will be used, allowing development of a restroom/shower building, a fish cleaning station, and a potable water system. Development will include an access road, parking spaces, a boat ramp, and camping sites. Other support facilities such as shelters, a fish drying shed, and net repair areas will be available. The estimated cost for this site is \$3,589,000.

Table 3-21 -- *Proposed Development, Lyle*

<u>Item</u>	<u>Quantity</u>
Groin . . . . .	1
Boat ramp . . . . .	1
Dock . . . . .	800 sf
Water system . . . . .	1
Net repair area . . . . .	1
Fish drying shed . . . . .	1
Fish cleaning station . . . . .	1
Sewer system . . . . .	1
Vault toilets . . . . .	2
Restroom/shower building . . . . .	1
Camping sites . . . . .	8
Parking spaces (paved) . . . . .	8
Dumpster pads . . . . .	1
Planting . . . . .	Several
Irrigation system . . . . .	60,000 sf
Seeding . . . . .	172,000 sf
Outside lighting system . . . . .	1
Asphalt pavement . . . . .	8,360 sy
Boundary fence . . . . .	1,900 lf
Site cleanup . . . . .	LS
Signs . . . . .	1



b. Wind River Site. Proposed features are shown in table 3-22 and plate B of Appendix B. Utilities, including electricity, water, and telephone are available. The water well would require testing for volume and quality. An existing drainfield allows disposal of sanitary wastes, but a new drainfield would be required for flush toilets and a fish cleaning facility. The estimated cost for this site is \$3,480,000.

Table 3-22 -- *Proposed Development, Wind River*

<u>Item</u>	<u>Quantity</u>
Boat ramp . . . . .	1
Dock . . . . .	1,000 sf
Dredging . . . . .	5,000 cy
Water system . . . . .	1
Net repair area . . . . .	1
Fish cleaning station . . . . .	1
Drainfield/sewer system . . . . .	1
Gray water disposal . . . . .	1
Restroom/shower building . . . . .	1
Camping sites . . . . .	10
Parking spaces (paved) . . . . .	10
Dumpster pads . . . . .	1
Planting . . . . .	Several
Topsoil . . . . .	2,200 cy
Irrigation system . . . . .	60,000 sf
Seeding . . . . .	172,000 sf
Outside lighting system . . . . .	1
Asphalt pavement . . . . .	10,600 sy
Boundary fence . . . . .	2,000 lf
Site cleanup . . . . .	LS
Signs . . . . .	1

c. Stanley Rock Site. Proposed features are shown in table 3-23 and plate C of Appendix B. Development will provide river access along with a wide range of fishing support facilities. This includes 10 paved parking spaces, 10 camping sites, a net repair area, a boat ramp, and a dock. The site will accommodate a drainfield; therefore, flush toilets, showers, and a fish cleaning station will be provided. The estimated cost for this site is \$3,120,000.

Table 3-23 -- *Proposed Development, Stanley Rock*

<u>Item</u>	<u>Quantity</u>
Boat ramp . . . . .	1
Dock . . . . .	1,000 sf
Water system . . . . .	1
Net repair area . . . . .	1
Fish cleaning station . . . . .	1
Drainfield/sewer system . . . . .	1
Vault toilets . . . . .	2
Gray water disposal . . . . .	1
Restroom/shower building . . . . .	1
Camping sites . . . . .	10
Parking spaces (paved) . . . . .	10
Dumpster pads . . . . .	1
Planting . . . . .	Several
Topsoil . . . . .	2,200 cy
Irrigation system . . . . .	60,000 sf
Seeding . . . . .	129,000 sf
Outside lighting system . . . . .	1
Asphalt pavement . . . . .	6,800 sy
Boundary fence . . . . .	1,400 lf
Site cleanup . . . . .	LS
Signs . . . . .	1

d. White Salmon Site. Proposed features are shown in table 3-24 and plate D of Appendix B. Development includes a paved access road, eight paved parking spaces, and eight camping sites. An irrigation system, lawn, and plantings were included to provide staging areas, shade and wind breaks. A drainfield will also be included; therefore, flush toilets, showers, and a fish cleaning station will be furnished. Two vault toilets will be provided for convenience. The estimated cost for this site is \$3,308,000.

e. Dallesport Site. Proposed features are shown in table 3-25 and plate E of Appendix B. Development includes a paved access road, eight paved parking spaces, one camping site, and two vault toilets. A boat ramp and dock will be provided for river access. The estimated cost for this site is \$1,245,000.

f. Bingen Boat Channel Site. Proposed features are shown in table 3-26 and plate F of Appendix B. Development includes a gravel access road, two paved parking spaces, one camping site, and two vault toilets. Only a dock will be provided for river access. The estimated cost for this site is \$868,000.

Table 3-24 -- *Proposed Development, White Salmon*

<u>Item</u>	<u>Quantity</u>
Groin .....	1
Boat ramp .....	1
Dock .....	1,000 sf
Water system .....	1
Net repair area .....	1
Fish cleaning station .....	1
Drainfield/sewer system .....	1
Vault toilets .....	2
Gray water disposal .....	1
Restroom/shower building .....	1
Camping sites .....	8
Parking spaces (paved) .....	8
Dumpster pads .....	1
Planting .....	Several
Topsoil .....	2,200 cy
Irrigation system .....	60,000 sf
Seeding .....	172,000 sf
Outside lighting system .....	1
Asphalt pavement .....	6,450 sy
Boundary fence .....	1,600 lf
Site cleanup .....	LS
Signs .....	1

Table 3-25 -- *Proposed Development, Dallesport*

<u>Item</u>	<u>Quantity</u>
Boat ramp .....	1
Dock .....	1,000 sf
Net repair area .....	1
Vault toilets .....	2
Camping sites .....	1
Parking spaces (paved) .....	8
Dumpster pads .....	1
Seeding .....	84,000 sf
Asphalt pavement .....	6,283 sy
Boundary fence .....	1,200 lf
Site cleanup .....	LS
Signs .....	1

Table 3-26 -- *Proposed Development, Bingen Boat Channel*

<u>Item</u>	<u>Quantity</u>
Dock .....	1,000 sf
Vault toilets .....	2
Camping sites .....	1
Parking areas (gravel) .....	2
Dumpster pads .....	1
Seeding .....	84,000 sf
Gravel surfacing .....	720 sy
Boundary fence .....	600 lf
Site cleanup .....	LS
Signs .....	1

### 3.3 Summary

An irrigation system has been proposed for four of the six acquisition sites including Lyle, Wind River, Stanley Rock and White Salmon. It may be possible to provide adequate landscaping at these four sites without a permanent irrigation system. Very little detailed information is available on these sites but will be obtained after purchase. Therefore, plans for an irrigation system may be eliminated after review of the detailed information and consultation with the four Tribes and BIA.

Table 3-27 shows a summary of the proposed facilities to be developed at each site. Development ranges from providing new facilities to rehabilitating existing facilities. In some instances the existing facilities are in good condition and require no improvements.

Table 3-27 -- Proposed Facilities at the Treaty Fishing Access Sites

	RIVER ACCESS				SITE ACCESS				FISHING FACILITIES			
SITE	Boat Ramp	Dock	Groin	Dredge	Road	RR Crossing	Parking	Fencing	Cleaning Station	Net Repair	Drying Sheds	
Celilo	yes	yes	yes	yes	yes	existing	15	yes	yes	yes	yes	
P. Eddy	yes	yes	rehab	no	yes	no	12	yes	no	no	no	
Roosevelt	yes	yes	existing	no	yes	no	8	yes	no	yes	yes	
Faler Road	no	no	no	no	yes	no	8	yes	yes	yes	yes	
Avery	yes	yes	rehab	minor	yes	existing	6 gravel	no	no	no	no	
Rufus	no	no	no	no	yes	no	2 paved	no	no	no	no	
Maryhill	yes	yes	yes	yes	yes	no	15 paved	yes	yes	yes	yes	
N. Shore	yes	yes	no	no	yes	no	4 gravel	yes	no	no	no	
Lepage	yes	yes	no	no	yes	no	15 paved	yes	no	yes	no	
Goodnoe	no	no	no	no	yes	no	2 gravel	yes	no	no	no	
P. Point	yes	yes	yes	yes	yes	yes	8 paved	yes	no	yes	yes	
Rock Creek	no	no	no	no	yes	no	2 gravel	yes	no	no	no	
Sundale	rehab	yes	no	minor	yes	no	8 paved	yes	no	yes	yes	
***** NO DEVELOPMENT *****												
Moonay	yes	yes	yes	no	yes	new	10 paved	yes	no	no	no	
Pine Creek	yes	yes	no	yes	yes	no	8 paved	yes	no	yes	yes	
Threemile	no	no	no	no	yes	no	No	yes	no	no	no	
Alderdale	***** NO DEVELOPMENT *****											
Alder Creek	yes	yes	yes	no	yes	no	6 paved	yes	yes	yes	yes	
Crow Butte	no	no	no	no	yes	no	6 gravel	no	no	no	no	
Wind River	existing	exist/add	exist	no	yes	existing	2 gravel	no	yes	no	no	
Cooks Inlet	yes	yes	yes	minor	yes	no	8 paved	yes	yes	yes	yes	
Lyle	yes	yes	no	yes	yes	no	10 gravel	yes	yes	yes	no	
Wind River	yes	yes	no	no	yes	existing	10 paved	yes	yes	yes	no	
Stanley R.	yes	yes	yes	no	yes	existing	8 paved	yes	yes	yes	no	
W. Salmon	yes	yes	yes	no	yes	existing	8 paved	yes	yes	yes	no	
Dallesport	yes	yes	yes	minor	yes	existing	8 paved	yes	no	yes	no	
Bingen	no	yes	no	no	yes	existing	no	yes	no	no	no	



Table 3-27 -- Proposed Facilities at the Treaty Fishing Access Sites (continued)

PARK FACILITIES											
SITE	Camp Areas	Potable Water	Chlor-ination	Power/Lights	Sewer	Toilet	Shower	Shelter	Dumpster Pads	Irrigation	Plantings
Celilo	5	new well	yes	yes	drain/vault	2/1	2	no	4	yes	yes
P. Eddy	no	no	no	yes	vault	1	no	no	2	yes	yes
Roosevelt	8	yes	yes	yes	vault	3	0	no	2	yes	yes
Faler Road	6	city	no	yes	city	4	2	no	2	no	yes
Avery	no	no	no	no	vault	1	no	no	1	no	seed
Rufus	no	no	no	no	vault	1	no	no	1	no	seed
Maryhill	4	yes	no	yes	drainfield	4	4	2	2	yes	turf/plants
N. Shore	no	no	no	no	vault	1	no	no	1	no	seed
Lepage	5	yes	no	yes	vault	2	no	no	2	yes	turf/plants
Goodnoe	no	no	no	no	vault	1	no	no	no	no	no
P. Point	12	yes	yes	yes	vault	2	no	1	1	no	seed
Rock Creek	no	no	no	no	vault	1	no	no	no	no	no
Sundale	3	yes	yes	yes	vault	1	no	no	1	no	seed/plants
***** NO DEVELOPMENT *****											
Moonay											
Pine Creek	no	no	no	no <sup>2</sup>	vault	1	no	no	1	no	seed
Threemile	6	no	no	no	vault	2	no	1	1	no	seed
Alderdale	6	yes	yes	no	vault	2	no	1	1	no	seed
***** NO DEVELOPMENT *****											
Alder Creek											
Crow Butte	6	park system	no	yes	park system	4	4	2	2	yes	turf/plants
Wind River	4	no	no	no	vault	1	0	no	1	no	seed
Cooks Inlet	no	rehab	rehab	rehab	rehab	rehab	2	no	2	no	seed
Lyle	8 <sup>3</sup>	city	city	city	vault/city	2/2	2	no	1	yes	seed/plant
Wind River	10	yes	yes	yes	drain/vault	2	2	no	1	yes	seed/plant
Stanley R.	10	existing	yes	yes	drain/vault	2/2	2	no	1	yes	seed/plant
W. Salmon	8	city	city	yes	drain/vault	2/2	2	no	1	yes	seed/plants
Dallesport	1	no	no	no	vault	2	no	no	1	no	seed
Bingen	1	no	no	no	vault	2	no	no	1	no	seed

NOTES: 1) with lift station 2) at grade railroad crossing 3) pull up



## 4. RESULTS OF PLAN IMPLEMENTATION

### 4.1 Fish and Wildlife

Appendix E, the Coordination Act Report (CAR), prepared by the US Fish and Wildlife Service (FWS), describes the fish and wildlife impacts connected with the implementation of the Columbia River Treaty fishing access sites. This report addresses both Phase One and Phase Two sites. Since the Maryhill site was added after the CAR was prepared, the FWS reviewed this site separately and made recommendations, contained in a letter following the CAR. Anticipated impacts in development of the sites are considered to be low, except for Rufus, Sundale, Threemile Canyon, and Pasture Point sites, which have valuable fish and wildlife habitat; and Faler Road, Crow Butte, Rock Creek, Goodnoe, and North Shore sites, which have moderate fish and wildlife habitat values. These habitat sites, with extensive shallow water environments and/or abundant riparian vegetation, are heavily used by waterfowl and upland game. Adult and juvenile anadromous fish use the Columbia River at these sites.

The FWS has recommended actions to mitigate impacts to the high- and moderate-valued terrestrial and aquatic habitat during development of Treaty access sites, including:

- Dredge only what is absolutely necessary.
- Minimum as opposed to maximum development of the sites.
- Restrict shoreline development to boat ramp, dock and/or groin construction.
- Complete in-water dredging during the periods specified by the resource agencies.
- Plant trees, shrubs and manage grassy areas for waterfowl and other birds.
- Create or enhance wetland and riparian habitat for unavoidable losses.
- Construct floating breakwaters instead of rock groins; if rock groins are constructed, provide breaks in the groins for passage of juvenile anadromous fish.
- Develop replacement parks for those that will be displaced by the Treaty fishing access sites.

The Corps of Engineers' responses to the FWS recommendations are in Appendix F. The Corps' responses to the FWS letter regarding recommendations for the Maryhill site are found in Section 4.2. Every effort was made (or will be made during design) to fulfill the recommendations of the FWS without violating requirements of P.L. 100-581 and other applicable regulations.

## 4.2 Environmental Assessment

The draft Environmental Assessment indicates that potential environmental impacts from the development of the Columbia River Treaty fishing access sites are non significant. Construction of boat ramps, docks and groins will result in a loss of benthic and some shallow water habitat (5.17 acres). Dredging and disposal of dredged material may also affect the benthic and shallow water habitat with an estimated dredged area of 3.5 acres and 20,000 cubic yards of dredged material. See table 4, Cumulative Impacts Summary, and section titled Biological in the Environmental Assessment. Beneficial uses of the dredge material will be identified and applied. Overall, the environmental impacts of the project on the physical and biological resources are considered minor. Table 4-1 describes what environmental documents were prepared, and table 2-86 summarizes the project, including site-specific information pertaining to Phase One or Phase Two.

Fish and wildlife habitat impacts were avoided or minimized based on the recommendations of the FWS in selection of the preferred alternatives. Site-specific mitigation measures cannot be developed until the plans and specifications stage of the project. The National Marine Fisheries Service and FWS agree that no mitigation features are required until plans and specifications are developed.

Recreational impacts are also anticipated to be minor to moderate for these activities, with the exception of Avery, Sundale and Alderdale. Development at these sites will result in loss of public use at these areas. There is a potential to capture conflict avoidance benefits and monetary incidental benefits by developing Tribal fishing access sites, which could reduce use of other public parks by Tribal fishers. These sites would provide additional river access and physically separate (with barriers, natural and constructed) the Tribal fishers and recreational public. Public facilities were not designed to accommodate Tribal fishers and, therefore, do not meet all their needs. When the Tribal fishers use the public parks, some confrontations with the public have occurred concerning use of the facilities and open space.

The FWS report identified high-value near-shore habitat for Rufus, Pasture Point, Sundale and Threemile Canyon. At Rufus there is no development within the riparian habitat, no boat ramp or dock is proposed, and planting for revegetation is planned. A boat ramp and dock with a small groin are proposed at Pasture Point. A boat ramp without a groin is proposed at Threemile Canyon adjacent to the public ramp. At Sundale, the development is limited to repairing an existing boat ramp and dock, and minimum dredging to reduce impacts. Shoreline development at all sites was avoided or limited where possible to reduce impacts. All upland development for the campgrounds has been located away from the riparian habitat at the sites.

A final Environmental Assessment for the remaining Phase Two sites has been prepared after public review. Additional environmental compliance would also be accomplished, if required, during the plans and specifications phase of the project. There is not sufficient

information on dredge locations, quantities and disposal sites and for those sites requiring fill to determine Section 404 (b)(1) requirements of the Clean Water Act. Impacts of dredge fill activities are expected to be minor. The engineering drawings (Appendix B) are conceptual and may change during and/or after the Engineering Data Report and plans and specifications phase. More detailed engineering investigations are scheduled for each site during these later stages of the program. If supplemental environmental information is required during the later stages of the program, it will be provided at that time. A separate Environmental Assessment has been prepared for the acquisition sites.

Biological assessments have been completed on the four Phase One sites proposed for early construction by the Corps. The assessments determined no effect on ESA-listed species. These include the endangered peregrine falcon, the threatened bald eagle, the endangered Snake River sockeye salmon, and two stocks of threatened Snake River chinook salmon. The FWS agree with the "no effect" assessment on the endangered peregrine falcon and the threatened bald eagle. The NMFS concur with a "no effect" determination of the listed aquatic species.

Biological assessments for Phase Two sites have been prepared with determinations of "no effect" or "not likely to adversely affect". The FWS has formally concurred with this determination. No formal response has been received from NMFS.



Table 4-1 -- Location of Environmental Assessment Documentation

Site	Location County/State	Site Type	Legal Basis	NEPA Document (EA)
<b>Legislative</b>				
Bonneville Area Office	Skamania, Washington	TFAS	401(a)	Phase One
Celilo	Wasco, Oregon	TFAS	401(a)	Phase One
Preachers Eddy	Sherman, Oregon	TFAS	401(a)	Phase One
Roosevelt	Klickitat, Washington	TFAS	401(a)	Phase One
Faler Road	Morrow, Oregon	TFAS	401(a)	Phase One/Two
Boardman	Morrow, Oregon	TFAS	401(a)	Phase Two
Rufus	Sherman, Oregon	TFAS	401(a)	Phase Two
Avery	Klickitat, Washington	TFAS	401(a)	Phase Two
Maryhill	Klickitat, Washington	TFAS	401(a)	Phase Two
Cliffs	Klickitat, Washington	TFAS	401(a)	Phase Two
LePage	Sherman, Oregon	TFAS	401(a)	Phase Two
Sundale	Sherman, Oregon	TFAS	401(a)	Phase Two
North Shore	Klickitat, Washington	TFAS	401(a)	Phase Two
Goodnoe	Klickitat, Washington	TFAS	401(a)	Phase Two
Pasture Point	Klickitat, Washington	TFAS	401(a)	Phase Two
Rock Creek	Klickitat, Washington	TFAS	401(a)	Phase Two
Moonay	Klickitat, Washington	TFAS	401(a)	Phase Two
Threemile Canyon	Morrow, Oregon	TFAS	401(a)	Phase Two
Alder Creek	Klickitat, Washington	TFAS	401(a)	Phase Two
Crow Butte	Benton, Washington	TFAS	401(a)	Phase Two
Pine Creek	Klickitat, Washington	TFAS	401(a)	Phase Two
Alderdale	Klickitat, Washington	TFAS	401(a)	Phase Two
<b>In-lieu</b>				
Cascade Locks	Hood River, Oregon	In-lieu	401(b)(1)	Phase One
Underwood	Skamania, Washington	In-lieu	401(b)(1)	Phase One
Lone Pine	Wasco, Oregon	In-lieu	401(b)(1)	Phase One
Wind River	Skamania, Washington	In-lieu	401(b)(1)	Phase Two
Cooks Inlet	Skamania, Washington	In-lieu	401(b)(1)	Phase Two
<b>Acquired</b>				
Lyle	Klickitat, Washington	Acquired	401(b)(3)	Land Acquisition
Wind River	Skamania, Washington	Acquired	401(b)(3)	Land Acquisition
Stanley Rock	Hood River, Oregon	Acquired	401(b)(3)	Land Acquisition
White Salmon	Klickitat, Washington	Acquired	401(b)(3)	Land Acquisition
Dallesport	Klickitat, Washington	Acquired	401(b)(3)	Land Acquisition
Bingen	Klickitat, Washington	Acquired	401(b)(3)	Land Acquisition

TFAS - treaty fishing access site

Acquired - treaty fishing access site to be purchased on the Bonneville Pool

401(a) - section in PL-100-581

401(b)(1) - section in PL-100-581

401(b)(3) - section in PL-100-581

Phase One - Final Phase One Evaluation Report/EA (October 1992)

Phase Two - Draft Phase Two Evaluation Report/EA (January 1995)

Land Acquisition - Final Land Acquisition Study/ EA (July 1994)

### **4.3 Cultural Resources**

Preliminary cultural resource surveys of the sites were completed in 1993 by Heritage Research Associates. Preliminary findings revealed that historic properties are present at the Bonneville Area Office, Lone Pine, Celilo, Roosevelt, Faler Road, Rufus, Maryhill, LePage, Pine Creek, and Alderdale sites. Field meetings in the winter of 1993 included representatives or members of the cultural committees of the Confederated Tribes of the Umatilla Indian Reservation; Confederated Tribes of the Warm Springs Indian Reservation; The Nez Perce Tribe; and the Confederated Tribes and Bands of the Yakama Nation.

During the meetings, Dr. Rick Minor (Heritage Research Associates) conducted a discussion of the content and extent of the historic properties present within each of the sites. In addition, Dr. Lynda Walker and Dr. Minor outlined, discussed, and planned with the various attendees the next steps to accomplish the protection and in some cases further investigation of the historic properties present at these sites.

Requirements for a Memorandum of Agreement (MOA) between all parties were also discussed, including such matters as the general terms by which the preservation of historic properties will be carried out; how to address sensitive cultural matters; and the requirement of a treatment plan for each site. A plan for a single MOA to be signed by all parties was developed. Subsequently, this procedure proved difficult to administer, and a decision was made to provide a separate MOA for each Tribal group and the Yakama Nation and a single MOA for the Federal Agencies and State Historic Preservation Offices (SHPO) of Washington and Oregon. The MOAs have been provided to the Tribal groups and the Yakama Nation for signature. Each SHPO has signed the MOA.

The historic properties will be identified by detailed investigations and then relocated. These investigations will also uncover any additional cultural resource material located at the sites. The investigations are scheduled for FY 95. See Appendix H, Cultural Resource Report. Historic properties mitigation has been identified with costs developed for these sites. These costs are identified in the cultural resource preservation account of the baseline cost estimate. They include funds for all levels of necessary investigation and mitigation with a contingency added for unexpected recovery, should the need develop.

### **4.4 Real Estate**

The real estate requirements for implementation of Public Law 100-581 were analyzed during the project's PED program. Section 1.9, Site Selection Process, discusses proposed changes to the initial legislation and the corresponding ramifications to all project real estate requirements. These proposed changes are outlined in the recommended plan shown in table 1-1, in which the treaty fishing sites have been divided into three site categories: treaty fishing access, in-lieu fishing, and acquired. The proposed legislated sites include 20 treaty fishing access sites, all of which are on federal lands under the

jurisdiction of the Corps. After development, these 20 sites will be transferred to the Department of Interior in accordance with ER 405-1-12, chapter 11, paragraph 11-100. The five identified in-lieu fishing sites are also on federal land but under the jurisdiction of BIA. The remaining six acquisition sites are to be purchased from willing sellers by the Corps, and subsequently developed and transferred to the Department of Interior.

Appendix I (Real Estate Report) contains a description of the required real estate tasks and corresponding real estate (estimated) costs associated with those Phase Two sites (contained in contracts B, C, D and E) as identified in the recommended plan. A list of sites by contract is located in section 4.8. A similar real estate report, with the same level of detail, covering those sites contained in contract A (Bonneville Area Office, Cascade Locks, Underwood and Lone Pine Sites) can be found in the appendices of the Phase One Report. Both of these real estate reports identify the assumptions and limiting conditions used to quantify required projected tasks and associated costs. Between them, the reports encompass all the sites within the recommended plan for the project. The estimated real estate costs associated with the four contract A sites have been indexed to reflect the August 1994 price levels used in the Phase Two Report and can be found summarized in the appendix J, Preliminary Baseline Cost Estimate.

To implement the recommended plan for the proposed project, the legislation which identifies the lands for the treaty fishing access sites requires modification; however, no modifications are required for either in-lieu fishing sites or acquisition sites. As stated, the recommended plan requires boundary adjustments to a number of legislated sites including Faler Road, Rock Creek, Celilo, Pine Creek, Goodnoe, Threemile Canyon, Preachers Eddy, LePage, Pasture Point, Moonay, Sundale, and Alder Creek. Alternative site locations are required for the legislated sites at Roosevelt, North Shore, and Crow Butte. The recommended plan also proposes the deletion of two original legislated sites (Boardman and Cliffs) and the addition of the Maryhill site. No boundary adjustments are required in the recommended plan for four of the original legislated sites: Avery, Alderdale, Bonneville Area Office and Rufus. The recommended plan proposes the above referenced boundary adjustments to remove those treaty fishing access sites, or portions thereof, identified in the original legislation from both railroad and highway rights-of-way, non-federal lands, and to provide acreage adjustments to minimize impacts to public recreation sites. There are some boundary adjustments that result in site expansions to include lands for support facilities and include existing facilities/structures. Alternative site locations are proposed where the original legislated site was viewed as unacceptable due to location within railroad and highway right-of-way; where site characteristics and topography are not suitable for development; and/or where relocation has cost-savings advantages.

The requirement to acquire additional lands adjacent to Bonneville Pool from willing sellers (acquisition sites) is a complex real property requirement. The legislation requires the Secretary to acquire lands until at least six sites have been purchased on the Bonneville Pool. The law also stipulates that the total acreage to be provided on

Bonneville Pool not exceed 360 acres. The \$2 million authorization limit to acquire additional lands adjacent to the Bonneville Pool is the most specific limit to the scope of land acquisition. This dollar limit, not numbers of sites or acreage, will be used to establish the extent of land acquisition. It is anticipated the dollar limit will be reached prior to the acreage limit. A Real Estate Design Memorandum will be prepared for the initial acquisition sites (Contract C) under the Phase Two Construction General (CG) program in FY 95. Any additional acquisitions of identified real property interests required in conjunction with the recommended plan will be covered in appropriate supplemental real estate planning documents (i.e. letter supplements) timed commensurate with the Phase Two CG program.

The 20 Treaty fishing access sites are all on federal lands under the jurisdiction of the Corps. The five in-lieu fishing access sites are on federal lands under the jurisdiction of BIA. The remaining six acquisition sites are on private lands and will be acquired by the Corps, developed and transferred to the Department of Interior with the Treaty fishing access sites. See Appendix I for a description of the required real estate administrative tasks and corresponding real estate (estimated) costs for the Phase One and Two portions of the project, for each site. The report also identifies the assumptions and/or limiting conditions used to quantify tasks and cost.

#### **4.5 Cost Estimate**

The summary estimate for Phase Two sites, along with a summary of the costs for Phase One sites (October 1994 price level), are in Appendix J. The estimate was prepared at October 1994 price level in the Code of Accounts (EC 1110-2-538) using the Micro Computer Aided Cost Engineering System (MCASES) Gold Cost Estimating System. It should be noted that this project is not considered to be recreational, but is better described as Treaty fishing site mitigation due to inundation of the original sites following construction of Bonneville, The Dalles, and John Day dams. However, the Code of Accounts feature 14, Access Facilities, was used because boat ramps, docks, and sanitary and camping facilities, which are typical features of this project, are listed in the Recreation Facilities account. For the most part, cost items were developed using MCASES, production rates, and unit prices while those items which had no relevant information available in the MCASES data base were estimated using historic records and/or quotes from local sources. Each line item was evaluated by the appropriate design team member(s) and assigned a contingency in line with the uncertainties in the design and site conditions. Some of these contingencies are as high as 40 percent. Costs were developed for five accounts: lands and damages; construction; cultural resource preservation; planning, engineering and design; Hazardous, Toxic, Radioactive Wastes; and construction management.

Mitigation costs where appropriate have been included in the baseline cost estimate. Many of the anticipated impacts to fish and wildlife habitat were avoided or minimized during development of the site plans. The project sites have been separated into five



contracts. Contract A, Phase One, covers Bonneville Area Office, Cascade Locks, Underwood and Lone Pine. Contract B covers Celilo, Preachers Eddy, Roosevelt, Faler Road, Rufus, and Cooks Inlet. Contract C covers the acquisition sites Lyle, Wind River, Stanley Rock, White Salmon, Dallesport, and Bingen. Contract D covers Avery, Maryhill, LePage, and Sundale. Contract E covers North Shore, Goodnoe, Pasture Point, Rock Creek, Moonay, Threemile Canyon, Alder Creek, Crow Butte, Pine Creek, Alderdale, and Wind River. Table 4-2 summarizes the total estimated costs for Phase One and Phase Two sites. The cost of Phase One is \$7,440,000 (October 1994 price level), without inflation and \$7,666,000 (October 1994 price level), with inflation, as detailed in the Phase One Report. The cost of Phase Two is \$59,590,000 (October 1994 price level), without inflation and \$66,909,000 (October 1994 price level), with inflation. The total project cost is \$67,030,000, without inflation. With inflation the total cost of the project is \$74,575,000. The costs do not include estimates for providing appropriate river access facilities at each site in the event that pool levels at the Bonneville, The Dalles, and John Day projects are lowered to below minimum pool levels to provide fish enhancement. If the pool levels are lowered below minimum levels, an increase in costs for each site is anticipated.



Table 4-2 -- Total Project Cost (x1,000)

	Lands and Damages	Construction	Planning Engineering and Design	Construction Management	Cultural Resource Preservation	HTRW	Total Cost w/o Inflation
<b>Subtotal</b>	\$74	<b>Phase One (October 1994 Price Level)</b> \$4,197	\$835	\$571	\$169		\$5,846
		<b>Phase Two (October 1994 Price Level)</b>					
Celilo	\$86	\$2,714	\$278	\$464	\$101	\$6	\$3,649
Preachers Eddy	\$86	\$1,576	\$162	\$270		\$6	\$2,100
Roosevelt	\$62	\$1,226	\$126	\$210		\$6	\$1,630
Faler Road	\$74	\$1,289	\$132	\$220		\$6	\$1,721
Avery	\$53	\$1,202	\$138	\$173		\$6	\$1,572
Rufus	\$57	\$92	\$9	\$16	\$15	\$6	\$195
Maryhill	\$74	\$3,371	\$388	\$485	\$62	\$6	\$4,386
North Shore	\$53	\$342	\$23	\$47		\$56	\$521
LePage	\$61	\$1,190	\$137	\$171	\$20	\$6	\$1,585
Goodnoe	\$48	\$39	\$3	\$5		\$6	\$101
Pasture Point	\$87	\$3,817	\$259	\$528		\$6	\$4,697
Rock Creek	\$48	\$35	\$2	\$5		\$56	\$146
Sundale	\$66	\$1,159	\$133	\$167		\$6	\$1,531
Moonay	\$20	<b>No Development</b>				\$6	\$26
Pine Creek	\$69	\$3,989	\$271	\$552	\$39	\$6	\$4,926
Threemile Cany	\$54	\$1,203	\$82	\$167		\$6	\$1,512
Alderdale	\$79	\$956	\$65	\$132	\$39	\$6	\$1,277
Alder Creek	\$24	<b>No Development</b>				\$6	\$30
Crow Butte	\$69	\$3,038	\$206	\$421		\$6	\$3,740
Wind River	\$2	\$121	\$8	\$17		\$6	\$154
Cooks	\$11	\$780	\$80	\$133		\$6	\$1,010
Lyle	\$341	\$2,528	\$273	\$330	\$61	\$56	\$3,589
Wind R. (Acqu.)	\$341	\$2,478	\$249	\$301	\$55	\$56	\$3,480
Stanley Rock	\$341	\$2,239	\$242	\$292		\$6	\$3,120
White Salmon	\$341	\$2,315	\$250	\$302	\$44	\$56	\$3,308
Dallesport	\$341	\$681	\$73	\$89	\$55	\$6	\$1,245
Bingen	\$341	\$363	\$39	\$47	\$72	\$6	\$868
<b>Phase Two</b>	<b>\$3,229</b>	<b>\$38,743</b>	<b>\$3,628</b>	<b>\$5,544</b>	<b>\$563</b>	<b>\$412</b>	<b>\$52,119</b>
<b>OM&amp;R</b>							<b>\$7,471</b>
<b>Phase One</b>	<b>\$74</b>	<b>\$4,197</b>	<b>\$835</b>	<b>\$571</b>	<b>\$169</b>		<b>\$5,846</b>
<b>OM&amp;R</b>							<b>\$1,594</b>
<b>Total</b>	<b>\$3,303</b>	<b>\$42,940</b>	<b>\$4,463</b>	<b>\$6,115</b>	<b>\$732</b>	<b>\$412</b>	<b>\$67,030</b>

These costs may differ from those in the baseline cost estimate due to rounding

#### **4.6 Economics**

A National Economic Development (NED) plan was not developed for this project because Congress established the project by enacting P.L. 100-581, which includes the number and location of the legislated sites. Additional development cost analysis was prepared for the sites (see Appendix K, Economic Report). The total average annual cost analysis included: construction; real estate; construction management; planning, engineering and design; interest during construction; incidental losses and benefits; and operation and maintenance. The federal interest rate of 7.75 percent and a 25-year project life were used in the cost analysis. The total average annual cost for all Phase Two sites is \$6,041,334. These costs do not include Washington sales tax; cultural resource mitigation; or hazardous, toxic and radiological wastes (HTRW) assessment/cleanup.

#### **4.7 Hazardous, Toxic and Radiological Wastes (HTRW)**

Limited hazardous, toxic, and radiological wastes (HTRW) knowledge is available on the Treaty fishing access sites. However, HTRW contamination in the Columbia River Gorge is considered minimal and local in extent. Initial assessments for each site are scheduled, as appropriate, to fulfill the regulations and requirements of P.L. 100-581. The initial assessments for the acquisition program on the sites identified for further study are scheduled early in the acquisition process. Initial assessments for the remaining sites, treaty fishing access and in-lieu fishing sites, all under federal ownership, will be prepared concurrent with plans and specifications for each contract. These HTRW site assessments will be conducted in accordance with ER 1165-2-132, June 26, 1992.

Appendix O includes the HTRW report. Estimated costs for HTRW investigations and cleanup included in the baseline cost estimate are based on historic knowledge of the sites by district technical personnel. The estimated total cost for HTRW for the Phase Two Treaty fishing access sites is \$412,000. The costs for individual sites are listed in table 4.1.

#### **4.8 Schedule**

An engineering data report to be developed following approval of the Phase Two Evaluation Report will be followed by Plans and Specification. Supplemental engineering data will be developed and additional engineering analyses conducted.

The project was separated into small contracts to allow small disadvantaged contractors the opportunity to compete for the work. Contracts will be awarded beginning in fiscal years and are expected to take one year to complete. Contract A, Phase One recommended sites, will be awarded in 1995. Acquisition of lands for the acquisition sites will begin in 1995. Contract B will be awarded in 1996, Contract C in and Contract D in 1997, and Contract E in 1999. The sites will be transferred to BIA when the contract is completed and closed.

Contract B

Celilo, Oregon, RM 201.5  
Preachers Eddy, Oregon, RM 213.5  
Roosevelt, Washington, RM 214.1  
Faler Road, Oregon, RM 267.5  
Rufus, Oregon, RM 212.4  
Cooks, Oregon, RM 162

Contract C

Lyle, Washington, RM 108.7  
Wind River, Washington, RM 154.7 (acquired site)  
Stanley Rock, Washington, RM 170.1  
White Salmon, Washington, RM 169.5  
Dallesport, Washington, RM 188.5  
Bingen Boat Channel, Washington, RM 172

Contract D

Avery, Washington, RM 197.4  
Maryhill, Washington, RM 208.2  
LePage, Oregon, RM 217.8  
Sundale, Washington, RM 236.2

Contract E

North Shore, Washington, RM 215.9  
Goodnoe, Washington RM 225.4  
Pasture Point, Washington, RM 226.5  
Rock Point, Washington, RM 227.5  
Moonay, Washington, (No Development)  
Three Mile Canyon, Oregon, RM 255.0  
Alder Creek, Washington, (No Development)  
Crow Butte, Washington, RM 262  
Pine Creek, Washington, RM 250.2  
Alderdale, Washington, RM 257.5  
Wind River, Washington, RM 155 (in-lieu fishing site)

#### 4.9 Operations, Maintenance, and Site Regulation

The operations, maintenance and repair (OM&R) of the in-lieu fishing sites is currently the responsibility of the Department of Interior (DOI), BIA. In response to the authorizing legislation, P.L. 100-581, a plan to share costs of OM&R between the Corps and BIA evolved in discussions (November 1994 and January 1995) between the Assistant Secretary of Army for Civil Works, the Assistant Secretary of Interior for Indian Affairs, and the Department of Energy. The plan provides for the DOI, BIA to accept OM&R of the Treaty fishing access sites after construction and transfer. Additionally, they will fund a portion of the OM&R, including maintenance buildings, staff, training, inspection and auditing for the sites. The Corps agreed to capitalize the OM&R for the site facilities and has included these costs in the construction cost estimate. After construction the Corps would transfer the capitalized funds to BIA, which would establish a trust fund and make funds available to the four Tribes to perform OM&R on the sites. Department of Energy, Bonneville Power Administration, would reimburse the U.S. Treasury the percentage of costs allocated to hydropower.

A cost estimate for the OM&R on the Treaty fishing access sites project has been developed for this report. This estimate represents an attempt to quantify potential OM&R costs on the project. However, the final figure for the capitalization costs will be negotiated with DOI, BIA. Therefore, these costs are subject to change pending the outcome of the negotiations.

The Corps estimated the annual OM&R facility costs for each site based on similar facilities in similar locations, primarily LePage Park administered by the Corps. Use levels at LePage are among the highest along the Columbia River. The OM&R estimate has two values based on the level of development in October 1994 price levels. The first value, \$24,464, is the estimated OM&R costs for those sites having a boat ramp and dock, camping, landscaping and/or other facilities. The second, \$11,020, is the estimated OM&R for sites having very little development and no boat ramp, dock or landscaping. If these sites have camping, it is primitive. See table 4-3 for a summary of OM&R costs by site.

In determining the capitalized value for each contract, the federal discount rate of 7.75 percent was applied to the stream of constant cost (annual OM&R) to obtain the net present value for a 50-year project life. These values were discounted to 1996 price levels. Inflation was not incorporated in the cost (table 4-4). However, a 20 percent contingency was added to the net present value for each contract, and these new values were price-leveled to the mid-point of construction in the baseline cost estimate to determine the fully funded values. The 20 percent contingency was added to the baseline estimate to cover unanticipated costs in OM&R on the site facilities and to help offset future increases due to inflation (table 4-5).

Table 4-3 -- OM&amp;R Costs by Site

YEAR OF TRANSFER	SITE	CONTRACT	ANNUAL OM&R
1996	BAO	A	\$24,464
1996	Cascade Locks	A	\$24,464
1996	Underwood	A	\$24,464
1996	Lone Pine	A	\$24,464
1997	Cooks Inlet	B	\$24,464
1997	Celilo	B	\$24,464
1997	Rufus	B	\$11,020
1997	Preachers Eddy	B	\$24,464
1997	Roosevelt	B	\$24,464
1997	Faler Road	B	\$24,464
1999	Lyle	C	\$24,464
1999	White Salmon	C	\$24,464
1999	Stanley Rock	C	\$24,464
1999	Bingen Channel	C	\$24,464
1999	Dallesport	C	\$24,464
1999	Wind River	C	\$24,464
1998	Sundale	D	\$24,464
1998	Avery	D	\$24,464
1998	LePage	D	\$24,464
1998	Maryhill	D	\$24,464
2000	North Shore	E	\$24,464
2000	Goodnoe	E	\$11,020
2000	Pasture Point	E	\$24,464
2000	Rock Creek	E	\$11,020
2000	Wind River	E	\$11,020
2000	Pine Creek	E	\$24,464
2000	Threemile Canyon	E	\$24,464
2000	Alderdale	E	\$24,464
2000	Crow Butte	E	\$24,464



A summary of the capitalized costs are given in table 4-4 below. Table 4-5 is a summary of the costs of OM&R developed in the baseline cost estimate.

Table 4-4 -- Capitalized OM&R Costs for Each Contract Without Contingency

<b>YEAR OF TRANSFER</b>	<b>CONTRACT</b>	<b>ANNUAL OM&amp;R (\$)</b>	<b>NET PRESENT VALUE, OM&amp;R (\$)</b>
1996	A	97,858	1,327,970
1997	B	133,342	1,679,351
1999	C	146,786	1,592,299
1998	D	97,858	1,143,809
2000	E	179,846	1,810,604
<b>TOTAL</b>		<b>655,690</b>	<b>7,553,981</b>

Table 4-5 -- Capitalized OM&R Costs With Contingency

<b>CONTRACT</b>	<b>NET PRESENT VALUE, OM&amp;R (\$)</b>	<b>CONTINGENCIES (%)</b>	<b>TOTAL (\$)</b>	<b>FULLY FUNDED (\$)</b>
A	1,327,970	20	1,593,564	1,593,564
B	1,679,351	20	2,015,221	2,164,348
C	1,592,299	20	1,910,759	2,161,068
D	1,143,809	20	1,372,571	1,533,162
E	1,810,604	20	2,172,725	2,531,224
<b>TOTAL</b>	<b>7,553,981</b>		<b>9,064,840</b>	<b>9,983,366</b>

#### **4.10 Cost Allocation Plan**

It is clear that Congress did not intend for the Treaty Fishing Access Site costs to be allocated in any unusual manner, such as classifying them as "cultural resources" or "specific recreation." This would have exempted the costs from being allocated to navigation, hydropower, and flood control. Also, the legislation did not establish Treaty Fishing Access as a new project. Section 401.(c) of the authorizing act states the following:

" The Secretary of the Army shall treat the costs of implementation of paragraphs (2) and (3) of subsection (b) as project costs of the Army Corps of Engineers Columbia River projects, and such shall be allocated in accordance with existing principals of allocating Columbia River project costs. "

Given this intent to provide mitigation, project costs should be allocated to the appropriate specific purpose, or classified as joint-use costs and allocated to all purposes of the project. Since fishing access was impacted solely by the Bonneville reservoir, no one specific project purpose is responsible for the impacts. Hence, the costs of the Treaty Fishing Access Sites should be classified as joint-use costs and allocated to the project purposes using the joint percentages as defined in the Final Cost Allocation for the Bonneville project. The joint percentages for project costs should be allocated at the use rates of 50 percent to hydropower and 50 percent to navigation.



## 5. CONCLUSIONS AND RECOMMENDATIONS

### 5.1 Conclusions

In the Phase One Report, four sites were recommended for early implementation. Phase One sites have been approved for construction. The estimated project cost and fully funded cost for the Phase One program are \$7,440,000 and \$7,666,000, respectively. This Phase Two Report considers the implementation of 27 additional sites totaling 31 Treaty Fishing Access Sites. The estimated program cost and fully funded cost for Phase Two are \$59,590,000 and \$66,909,000, respectively. The estimated project cost and fully funded cost for the implementation of all sites total \$67,030,000 and \$74,575,000, respectively.

Findings indicate the sites recommended for implementation meet the implementation criteria and have been found acceptable to the four Tribes and BIA. These Phase One and Two sites include: Bonneville Area Office, Cascade Locks, Underwood, Lone Pine, Celilo, Preachers Eddy, Roosevelt, Faler Road, Avery, Rufus, Maryhill, North Shore, LePage, Goodnoe, Pasture Point, Rock Creek, Sundale, Moonay, Pine Creek, Threemile Canyon, Alderdale, Alder Creek, Crow Butte, Wind River, Cooks Inlet, and six acquisition sites.

By relocating the legislative boundaries, sites can be developed with facilities that will satisfy Tribal fisher needs without adverse impacts on public facilities. The four Tribes concur with the boundary adjustments (Appendix B). The intent of P.L. 100-581 was to provide river access sites for use by the Tribal fishers.

This Phase Two Evaluation Report is the final response of two documents submitted for the PED program. The engineering data report and development of the plans and specifications for the sites are scheduled to be completed in the next phase of the project.

The Nez Perce, Umatilla, Warm Springs, and Yakama Tribes, and BIA generally concur with the development site plans in the Phase Two report and recommend moving forward with implementation. A letter has been received from all four Tribes.

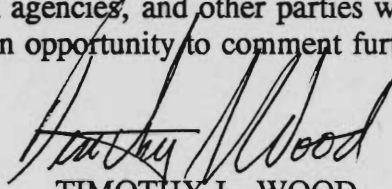
## 5.2 Recommendations

I hereby recommend approval of the 31 selected sites for implementation and construction.

The recommendations contained herein reflect the policies governing formulation of this project and the available information. They do not necessarily reflect program and budgeting priorities inherent in the formulation of national Civil Works construction program. Consequently, the recommendations may be modified at higher review levels within the Executive Branch before they are transmitted to the Congress as proposals for implementation and construction funding. However, prior to transmittal to Congress, the four Tribes, the states, interested federal agencies, and other parties will be advised of any modifications and will be afforded an opportunity to comment further.

Date:

5 May 95



TIMOTHY L. WOOD  
Colonel, EN  
Commanding



CENPD-ET-PP (CENPP-PE-P/May 95) (1105) 1st End

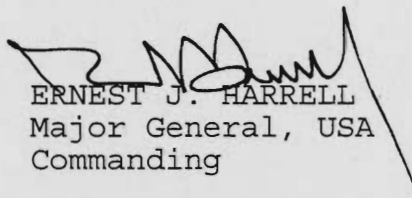
Mr. Chesney/kb/503-326-7881

SUBJECT: Columbia River Treaty Fishing Access Sites, Phase Two  
Evaluation Report and Environmental Assessment

CDR, North Pacific Division, Corps of Engineers, PO Box 2870,  
Portland, OR 97208-2870 09 MAY 1995

FOR CDR, USACE (CECW-PW), 20 MASS AVE NW, WASH DC 20314-1000

I concur in the conclusions and recommendations of the District  
Commander.

  
ERNEST J. HARRELL  
Major General, USA  
Commanding



## 6. BIBLIOGRAPHY

Oregon State Marine. Layout and Design guidelines for Recreational boat Launching and Transient Tie Up Facilities, June 1988.

U.S. Army Corps of Engineers, Portland District. Bonneville Master Plan, Design Memo No. 1B, Revised December 1974.

U.S. Army Corps of Engineers, Portland District. The Dalles Lock and Dam Master Plan, Design Memorandum 20, Revised August 1975.

U.S. Army Corps of Engineers, Portland District. John Day Lock and Dam Master Plan, Design Memorandum No. 25B, July 1976.

U.S. Army Corps of Engineers, Portland District. Columbia River Basin Oregon/Washington, Bonneville Lock and Dam: Modification for Peaking Design Memorandum No. 1 In-Lieu Fishing Sites Supplement No. 9, May 1973.

U.S. Army Corps of Engineers, Portland District. Public Info, Public Law 100-581, Title IV-Columbia River Treaty Fishing Access Sites, June 1989. **(Public Info Fact Sheet.)**

U.S. Army Corps of Engineers, Portland District, CECW-ON. ER 1130-2-435 Project Operation Preparation of Project Master Plans, December, 1987.

U.S. Army Corps of Engineers, Portland District, Public Info/Public Response, Public Law 100-581, Title IV-Columbia River Treaty Fishing Access Sites, August 1989.

U.S. Army Corps of Engineers, Portland District, Public Law 100-581, Title IV-Columbia River Treaty Fishing Access Sites, Sec 401(a), November 1988.

U.S. Army Corps of Engineers, Portland District, Aerial Photographs, Columbia River, Oregon and Washington, Bonneville Dam to McNary Dam, September 1979.

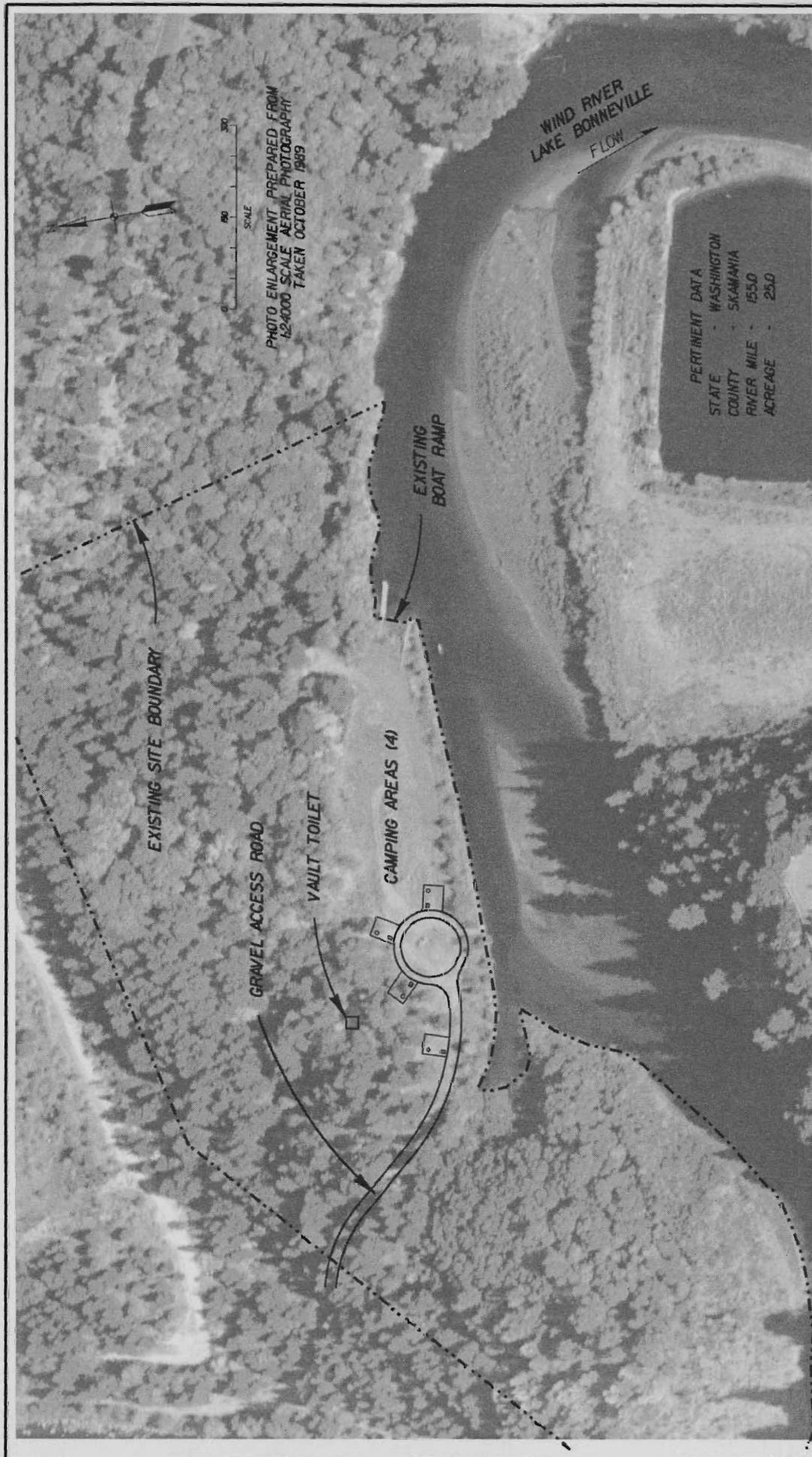
U.S. Army Corps of Engineers, Portland District, Mid-Columbia River Projects, Mater Plan for Resource Use, Columbia River, Oregon and Washington, Working Document - Development Suitability Analysis of Critical Management Units. **(Working Document.)**

U.S. Army Corps of Engineers, Portland District, Title IV Columbia River Treaty Fishing Access Sites, Phase One Interim Evaluation Report Public Law 100-581, October 1992.

U.S. Army Corps of Engineers, Portland District, Public Law 100-581, Title IV Columbia River Treaty Fishing Access Sites, Final Land Acquisition Study, July 1994.

U.S. Fish and Wildlife Service, Portland Field Office, Fish and Wildlife Evaluation Report, Title IV Columbia River Treaty Fishing Access Sites, Oregon and Washington, November 1989.





THIS DRAWING IDENTIFIES THE PROPOSED LEVEL OF DEVELOPMENT FOR THE RIVER ACCESS FACILITIES. THE SITE IMPROVEMENTS ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE AND SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL DESIGN IS NECESSARY BEFORE FINAL DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT AND LOCATION.

PLAN OF DEVELOPMENT

# WIND RIVER IN-LIEU FISHING SITE ALTERNATIVE 1



US Army Corps  
of Engineers  
Portland District

EVALUATION REPORT  
PUBLIC LAW 100-581  
TITLE IV - COLUMBIA RIVER TREATY  
FISHING ACCESS SITES, APRIL 1994

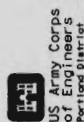
PLATE  
1



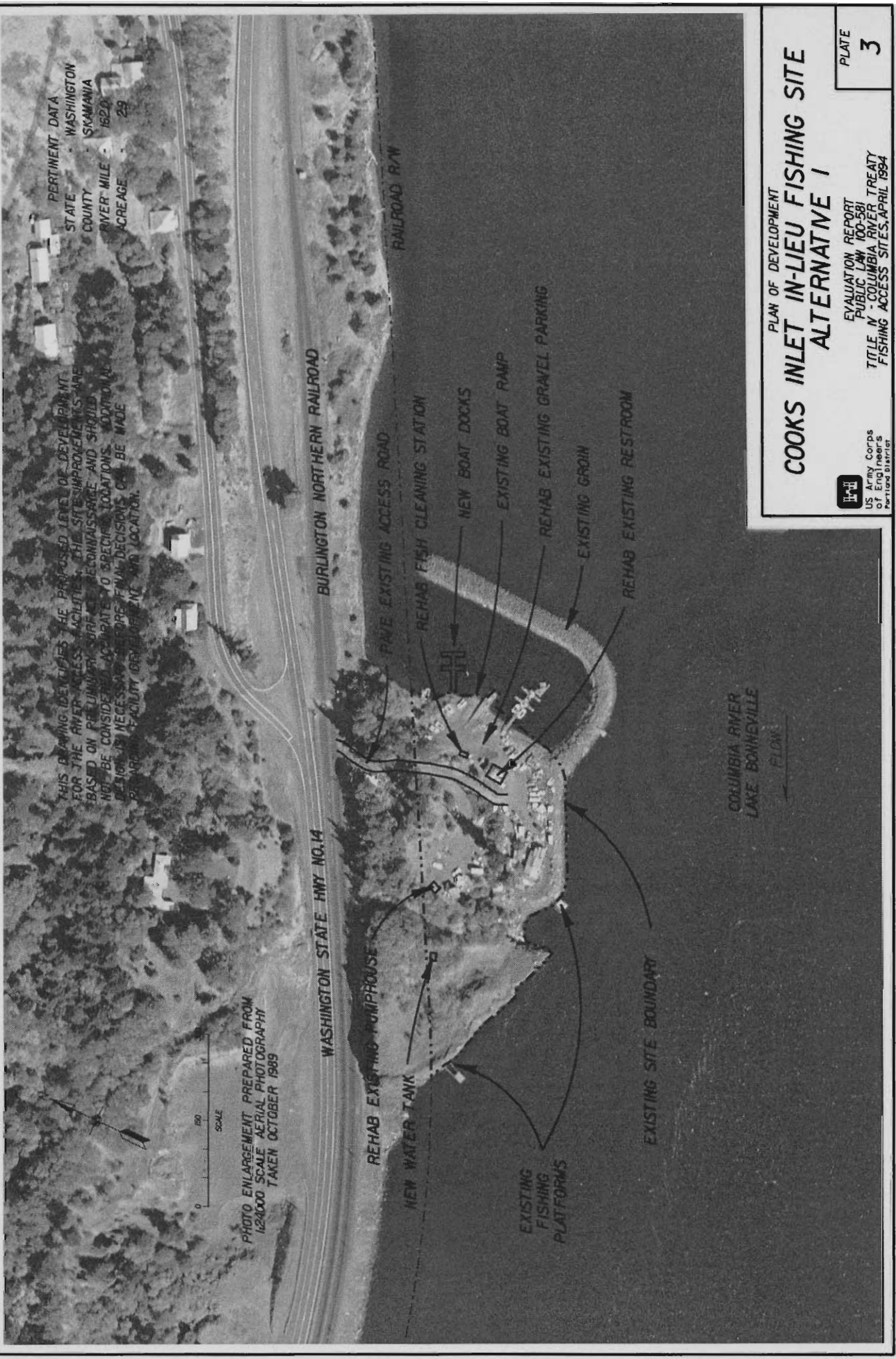


THIS SCHEMATIC IDENTIFIES PROPOSED DEVELOPMENT FOR REVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL AND ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE. THE DRAWINGS SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL PLANNING AND DESIGN ARE NECESSARY BEFORE FINAL DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT.

# CONCEPTUAL PLAN OF DEVELOPMENT **WIND RIVER IN-LIEU FISHING SITE ALTERNATIVE 2**



EVALUATION REPORT  
PUBLIC LAW 100-501  
TITLE IV - COLUMBIA RIVER TREATY  
FISHING ACCESS SITES, AUGUST 1991



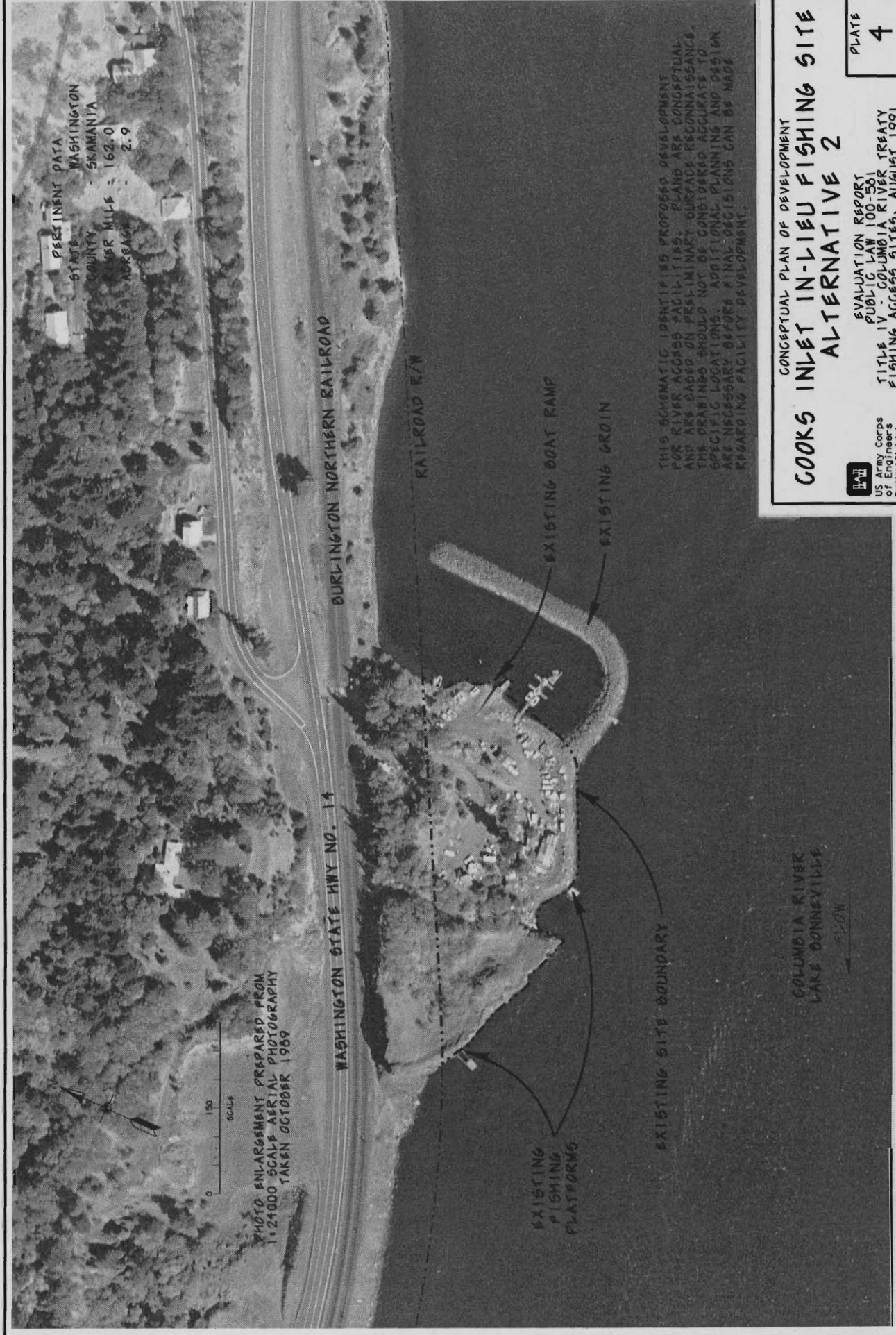
PLAN OF DEVELOPMENT

# COOKS INLET IN-LIEU FISHING SITE ALTERNATIVE 1

EVALUATION REPORT  
 PUBLIC LAW 100-561  
 TITLE IV - COLUMBIA RIVER TREATY  
 FISHING ACCESS SITES, APRIL 1984

US Army Corps  
 of Engineers  
 Portland District






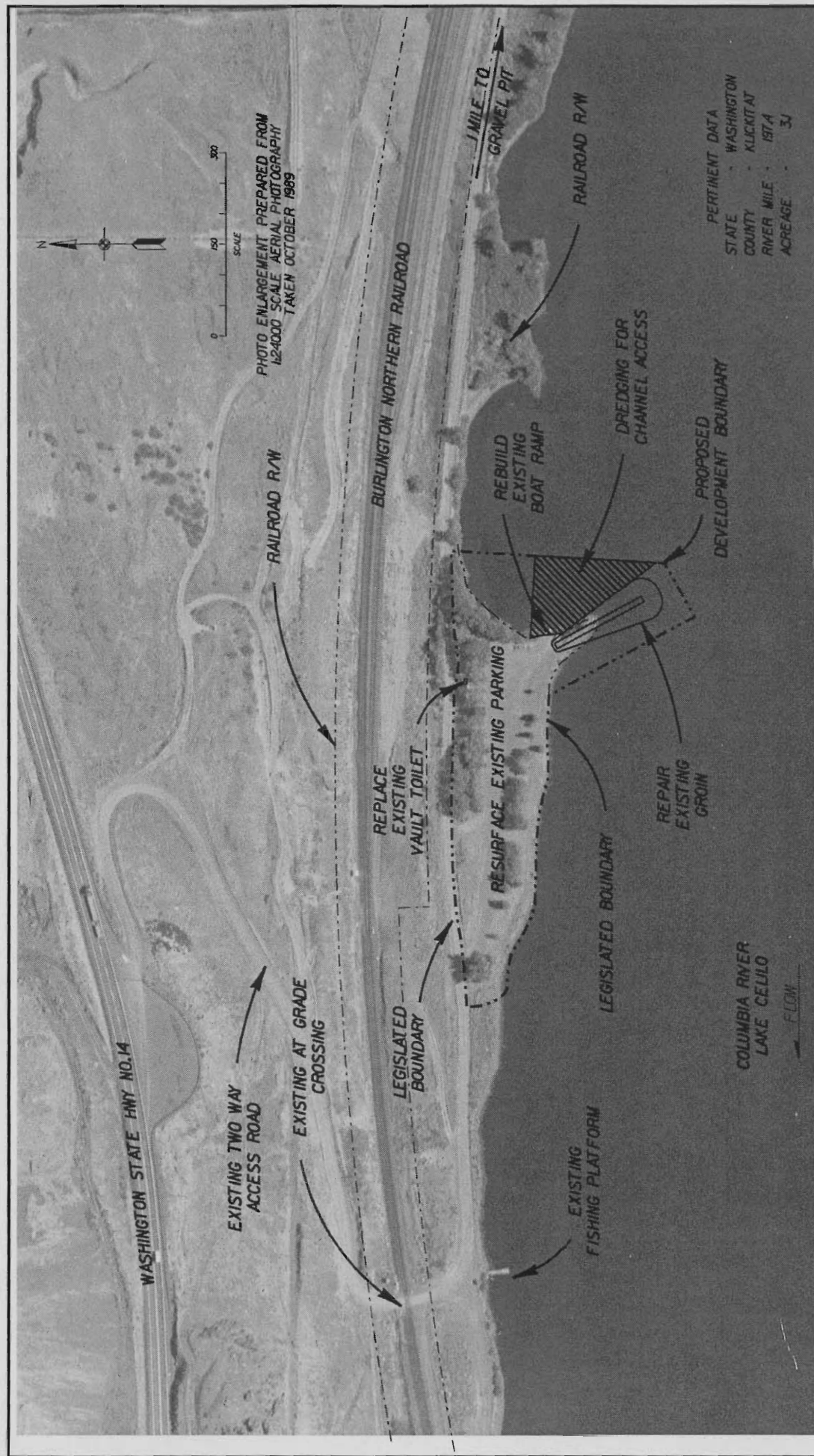
PERTINENT DATA  
STATE - WASHINGTON  
COUNTY - SKAMANIA  
RIVER MILES - 162.0  
ACREAGE - 2.9

PHOTO ENLARGEMENT PREPARED FROM  
1:24000 SCALE AERIAL PHOTOGRAPHY  
TAKEN OCTOBER 1969

THIS SCHEMATIC IDENTIFIES PROPOSED DEVELOPMENT FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL AND ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE. THE DRAWINGS SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL PLANNING AND DESIGN ARE NECESSARY BEFORE FINAL DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT.

CONCEPTUAL PLAN OF DEVELOPMENT  
**COOKS INLET IN-LIEU FISHING SITE  
ALTERNATIVE 2**

 EVALUATION REPORT  
PUBLIC LAW 100-501  
TITLE IV - COLUMBIA RIVER TREATY  
FISHING ACCESS SITES, AUGUST 1991



THIS DRAWING IDENTIFIES THE PROPOSED LEVEL OF DEVELOPMENT FOR THE RIVER ACCESS FACILITIES. THE SITE IMPROVEMENTS ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE AND SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL DESIGN IS NECESSARY BEFORE FINAL DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT AND LOCATION.

PLAN OF DEVELOPMENT

# EVERY TREATY FISHING ACCESS SITE ALTERNATIVE 1

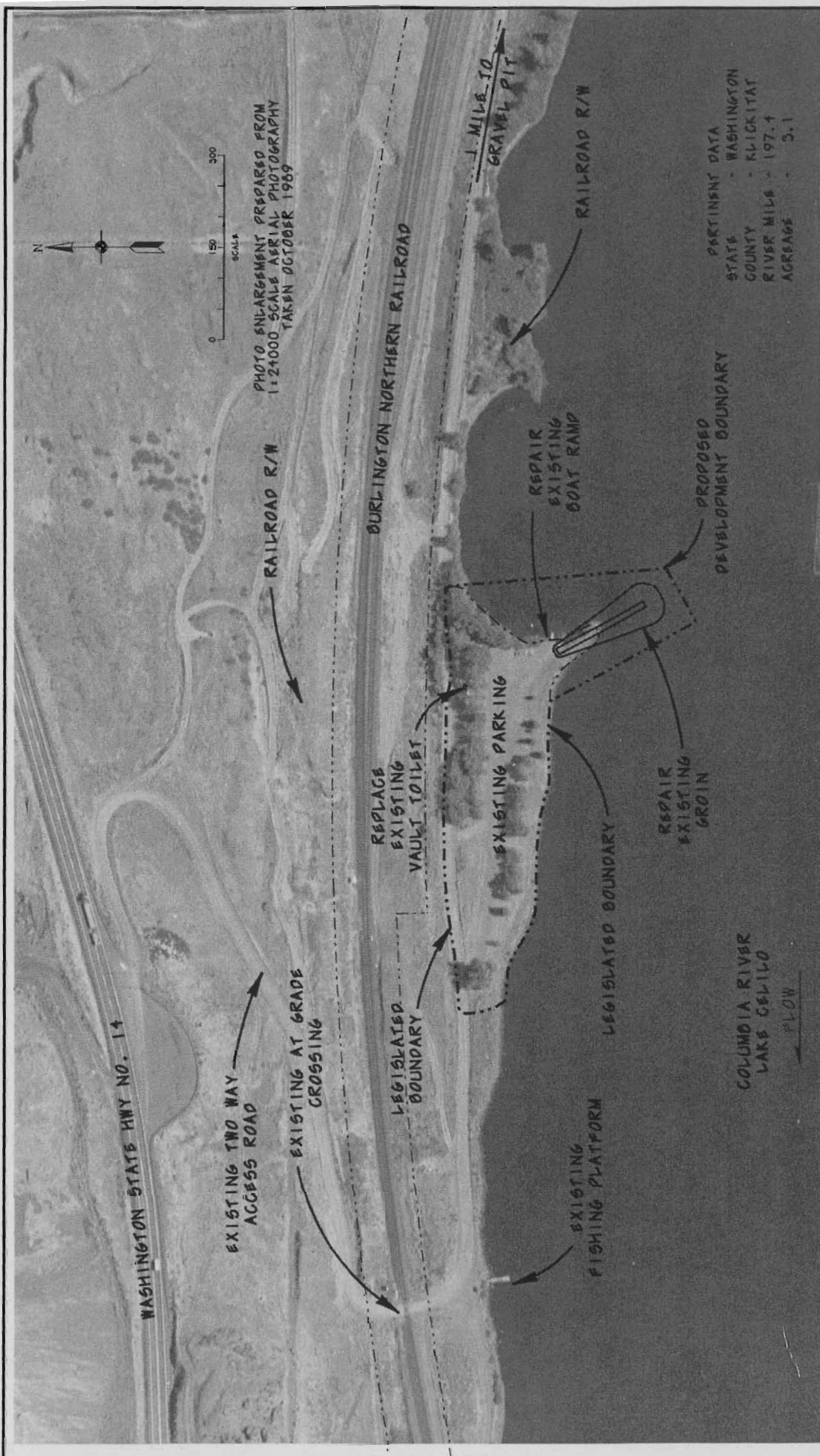
PLATE

5

EVALUATION REPORT  
PUBLIC LAW 100-581  
TITLE IV COLUMBIA RIVER TREATY  
FISHING ACCESS SITES, APRIL 1994

US Army Corps  
of Engineers  
Portland District





PARTINENT DATA  
 STATE - WASHINGTON  
 COUNTY - KILLICKITAT  
 RIVER MILE - 197.4  
 AGRAGE - 3.1

CONCEPTUAL PLAN OF DEVELOPMENT

AVERY TREATY FISHING ACCESS SITE  
 ALTERNATIVE 2

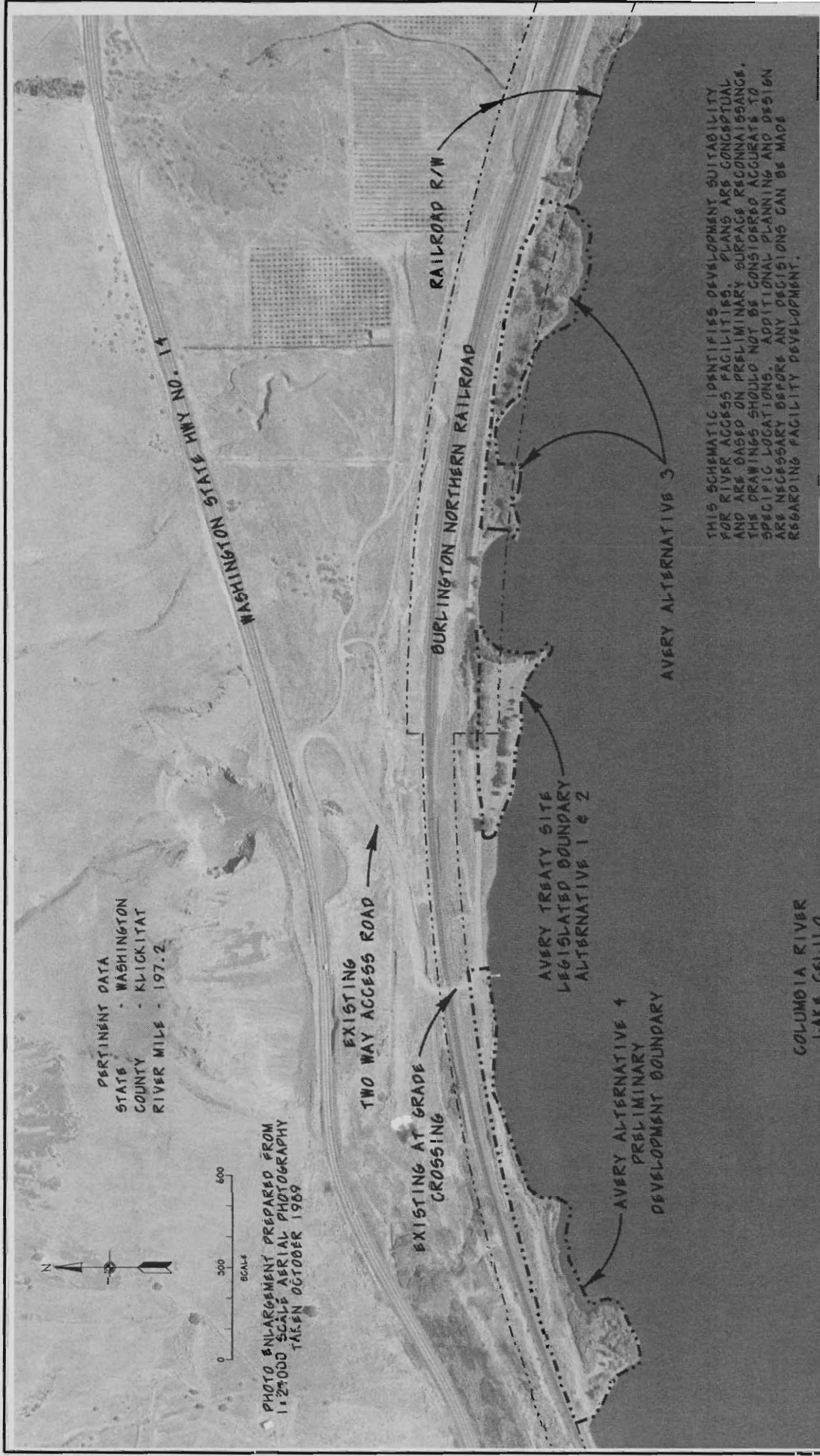
EVALUATION REPORT  
 PUBLIC LAW 100-501  
 TITLE IV - COLUMBIA RIVER TREATY  
 FISHING ACCESS SITES, AUGUST 1991

PLATE  
 6

US Army Corps  
 of Engineers  
 Portland District

THIS SCHEMATIC IDENTIFIES PROPOSED DEVELOPMENT FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL AND ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE. THE DRAWINGS SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL PLANNING AND DESIGN ARE NECESSARY BEFORE FINAL DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT.





CONCEPTUAL PLAN OF DEVELOPMENT

## AVERY TREATY FISHING ACCESS SITE ALTERNATIVE 3

THIS SCHEMATIC IDENTIFIES DEVELOPMENT SUITABILITY FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL AND ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE. THE DRAWINGS SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL PLANNING AND DESIGN ARE NECESSARY BEFORE ANY DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT.

US Army Corps  
of Engineers  
Portland District

WID-COLUMBIA RIVER PROJECTS  
MASTER PLAN FOR RESOURCE USE  
THE DALLES LOCK AND DAM  
DECEMBER 1990

PLATE  
7



PERTINENT DATA  
STATE - WASHINGTON  
COUNTY - KLIKITAT  
RIVER MILE - 197.0  
ACREAGE - 3.7

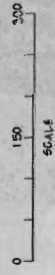


PHOTO ENLARGEMENT PREPARED FROM  
1:24000 SCALE AERIAL PHOTOGRAPHY  
TAKEN OCTOBER 1989

WASHINGTON STATE HWY NO. 14

EXISTING TWO-WAY  
ACCESS ROAD

EXISTING AT GRADE  
CROSSING

RAILROAD R/W

NEW TWO-WAY ACCESS ROAD

PRELIMINARY  
DEVELOPMENT BOUNDARY

WELL

PARKING

BURLINGTON NORTHERN RAILROAD

BOAT RAMP

VAULT  
TOILET

OPEN  
SPACE

GROIN

COLUMBIA RIVER  
LAKE CELILO  
FLOW

THIS SCHEMATIC IDENTIFIES DEVELOPMENT SUITABILITY FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL AND ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE. THE DRAWINGS SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL PLANNING AND DESIGN ARE NECESSARY BEFORE ANY DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT.

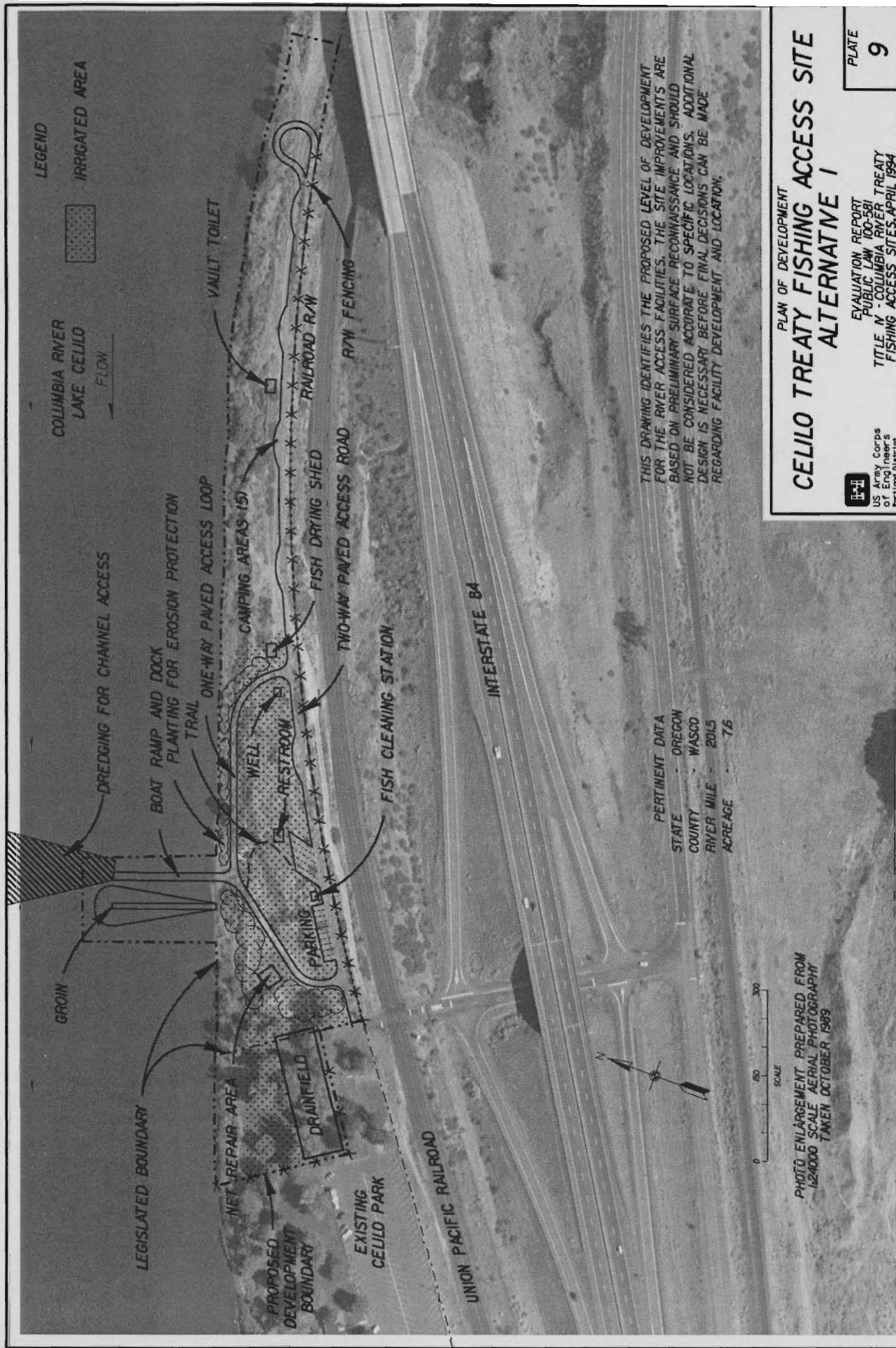
CONCEPTUAL PLAN OF DEVELOPMENT  
**AVERY TREATY FISHING ACCESS SITE  
ALTERNATIVE 4**

PLATE  
**8**

MID-COLUMBIA RIVER PROJECTS  
MASTER PLAN FOR RESOURCE USE  
THE DALLES LOCK AND DAM  
DECEMBER 1990

Army Corps  
US ARMY  
PORTLAND DISTRICT





THIS DRAWING IDENTIFIES THE PROPOSED LEVEL OF DEVELOPMENT FOR THE RIVER ACCESS FACILITIES. THE SITE IMPROVEMENTS ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE AND SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL DESIGN IS NECESSARY BEFORE FINAL DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT AND LOCATION.

PERTINENT DATA  
STATE - OREGON  
COUNTY - WASCO  
RIVER MILE - 20.5  
ACREAGE - 7.6

PHOTO ENLARGEMENT PREPARED FROM  
1:24,000 SCALE AERIAL PHOTOGRAPHY  
TAKEN OCTOBER 1989

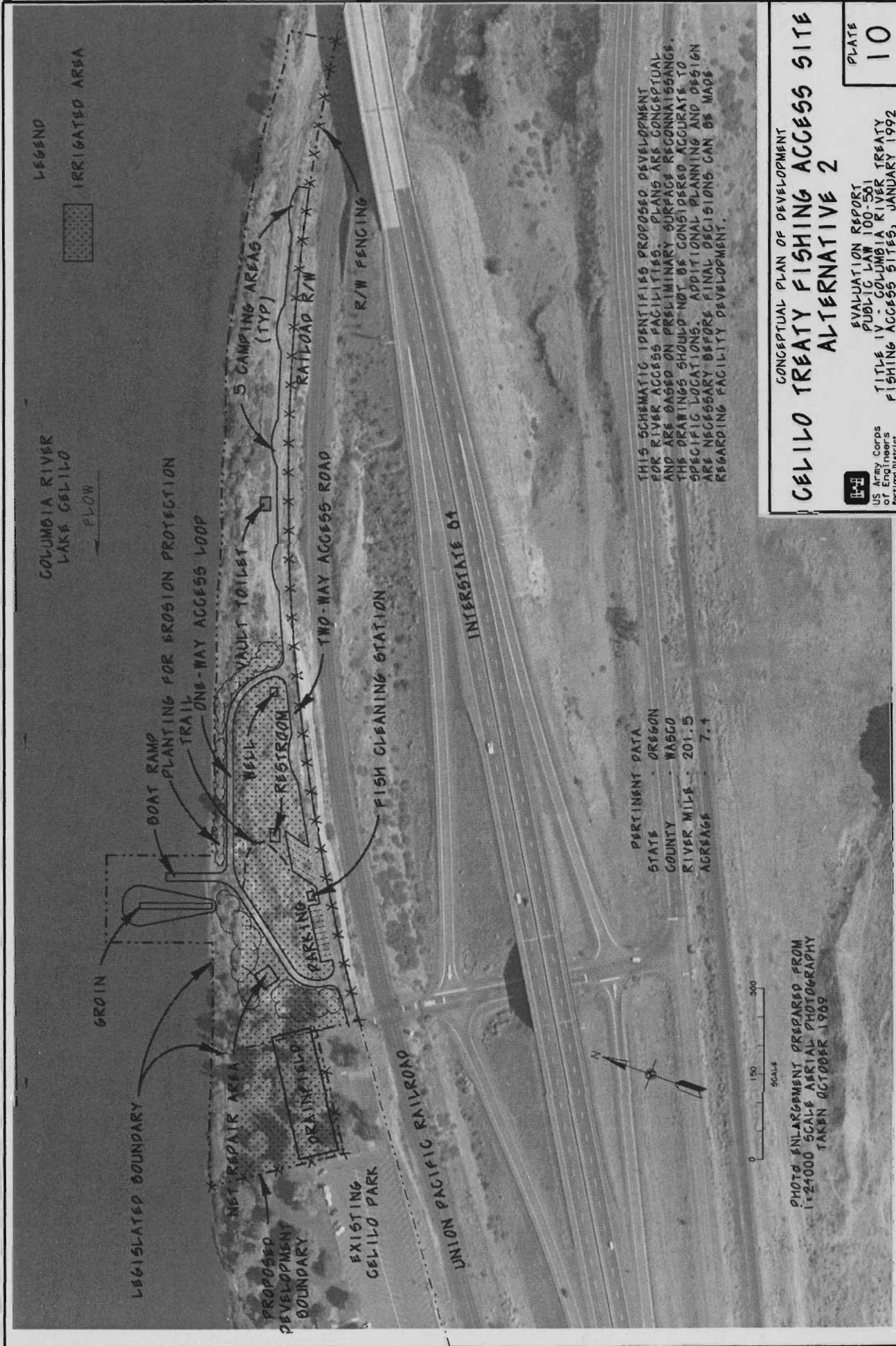
PLAN OF DEVELOPMENT

# CELILO TREATY FISHING ACCESS SITE ALTERNATIVE 1

EVALUATION REPORT  
PUBLIC LAW 100-581  
TITLE IV - COLUMBIA RIVER TREATY  
FISHING ACCESS SITES, APRIL 1984

US Army Corps  
of Engineers  
Portland District

PLATE  
9



COLUMBIA RIVER  
LAKE CELILO  
FLOW

LEGEND  
IRRIGATED AREA

PERTINENT DATA  
STATE - OREGON  
COUNTY - WASCO  
RIVER MILE - 201.5  
ACREAGE - 7.4

PHOTO ENLARGEMENT PREPARED FROM  
1:24000 SCALE AERIAL PHOTOGRAPHY  
TAKEN OCTOBER 1989

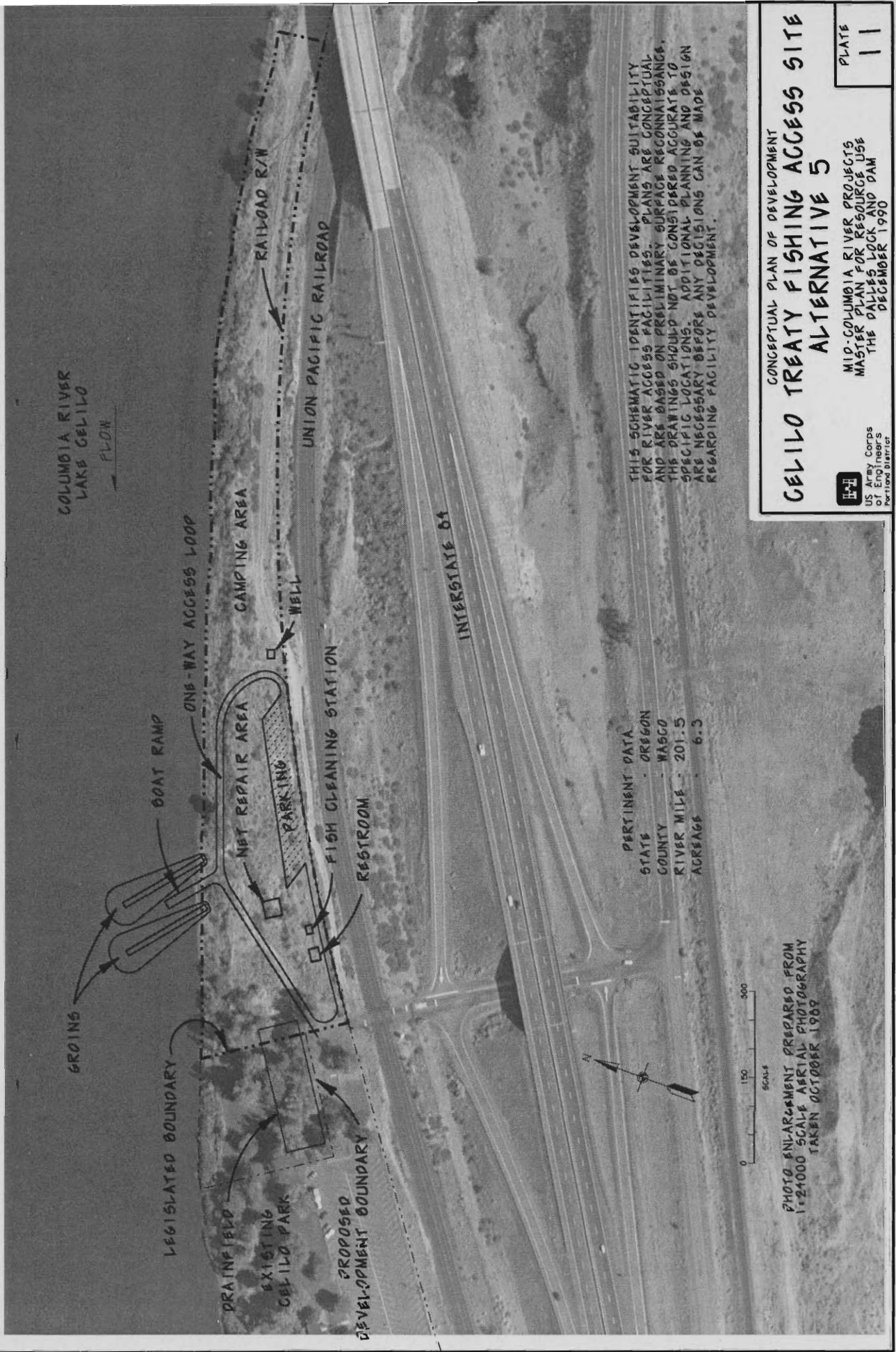
THIS SCHEMATIC IDENTIFIES PROPOSED DEVELOPMENT FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL AND ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE. THE DRAWINGS SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL PLANNING AND DESIGN ARE NECESSARY BEFORE FINAL DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT.

# CONCEPTUAL PLAN OF DEVELOPMENT **CELILO TREATY FISHING ACCESS SITE ALTERNATIVE 2**

**EVALUATION REPORT**  
PUBLIC LAW 100-501  
TITLE IV - COLUMBIA RIVER TREATY  
FISHING ACCESS SITES, JANUARY 1992

US Army Corps  
of Engineers  
Portland District





PERTINENT DATA  
 STATE - OREGON  
 COUNTY - WASCO  
 RIVER MILE - 201.5  
 ACREAGE - 6.3

THIS SCHEMATIC IDENTIFIES DEVELOPMENT SUITABILITY FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL AND ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE. THE DRAWINGS SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL PLANNING AND DESIGN ARE NECESSARY BEFORE ANY DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT.

PHOTO ENLARGEMENT PREPARED FROM  
 1:24000 SCALE AERIAL PHOTOGRAPHY  
 TAKEN OCTOBER 1989

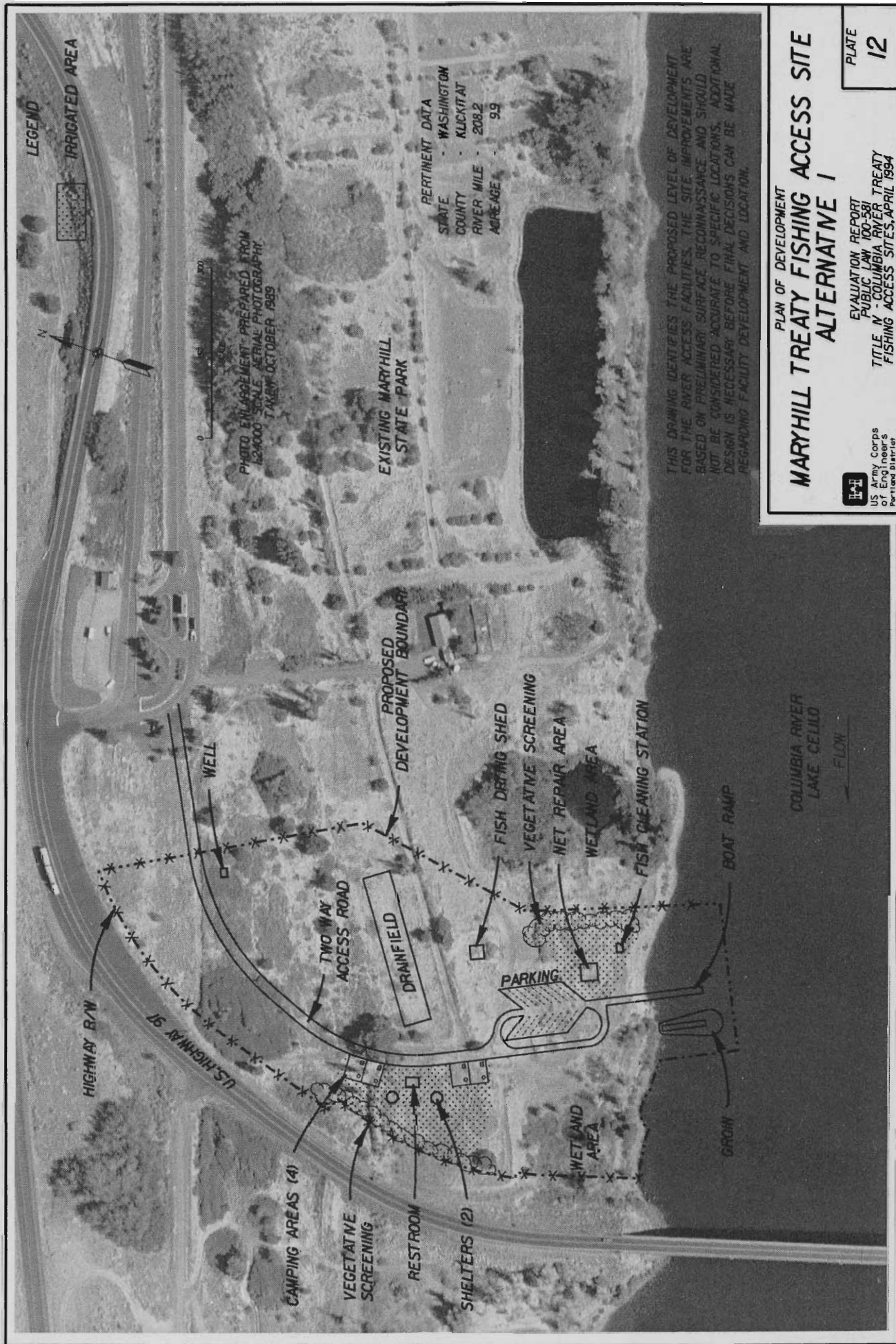
CONCEPTUAL PLAN OF DEVELOPMENT  
**CELILO TREATY FISHING ACCESS SITE  
 ALTERNATIVE 5**

**HE**  
 US Army Corps  
 of Engineers  
 Portland District

MID-COLUMBIA RIVER PROJECTS  
 MASTER PLAN FOR RESOURCE USE  
 ALLEYS CREEK AND DAM  
 THE DECEMBER 1990

PLATE  
 11





PLAN OF DEVELOPMENT

# MARYHILL TREATY FISHING ACCESS SITE ALTERNATIVE 1

EVALUATION REPORT  
PUBLIC LAW 100-581

TITLE IV - COLUMBIA RIVER TREATY  
FISHING ACCESS SITES, APRIL 1994

PLATE  
12

US Army Corps  
of Engineers  
Portland District



CONCEPTUAL PLAN OF DEVELOPMENT  
**MARYHILL TREATY FISHING ACCESS SITE  
ALTERNATIVE 2**

US Army Corps  
of Engineers  
PORTLAND DISTRICT

EVALUATION REPORT  
PUBLIC LAW 100-581  
TITLE IV - COLUMBIA RIVER TREATY  
FISHING ACCESS SITES, AUGUST 1991

PLATE  
**13**



THIS SCHEMATIC IDENTIFIES DEVELOPMENT SUITABILITY FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL AND ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE. THE DRAWINGS SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL PLANNING AND DESIGN ARE NECESSARY BEFORE ANY DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT.

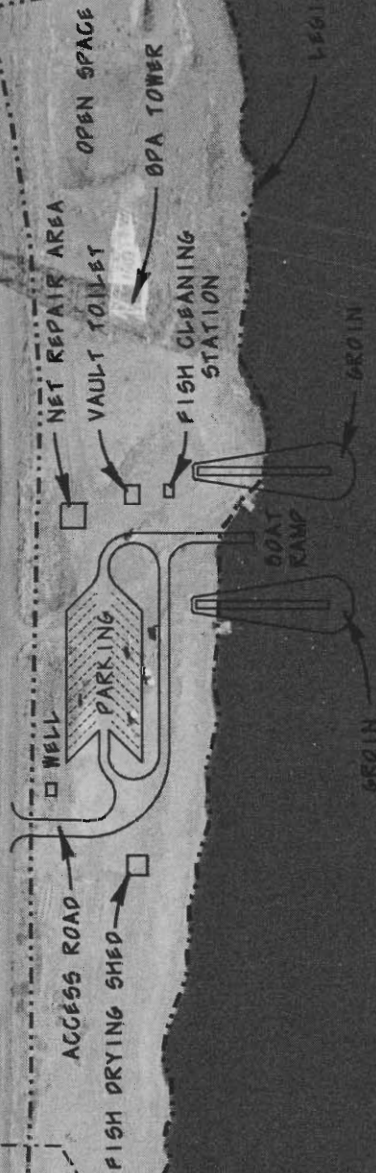
PERTINENT DATA  
STATE - WASHINGTON  
COUNTY - KLIKITAT  
RIVER MILE - 214.0  
ACRES - 0.5

CLIFFS ALTERNATE 2  
PRELIMINARY  
DEVELOPMENT BOUNDARY

SCALE  
0 150 300

PHOTO ENLARGEMENT PREPARED FROM  
1:24000 SCALE AERIAL PHOTOGRAPHY  
TAKEN OCTOBER 1989

HWY. NO. 14  
TO WASHINGTON STATE



COLUMBIA RIVER  
LAKE CELILO  
FLOW

# CONCEPTUAL PLAN OF DEVELOPMENT CLIFFS TREATY FISHING ACCESS SITE ALTERNATIVE 1



US Army Corps  
of Engineers  
Portland District

MID-COLUMBIA RIVER PROJECTS  
MASTER PLAN FOR RESOURCE USE  
JOHN DAY LOCK AND DAM-THE DALLES POOL  
DECEMBER 1990

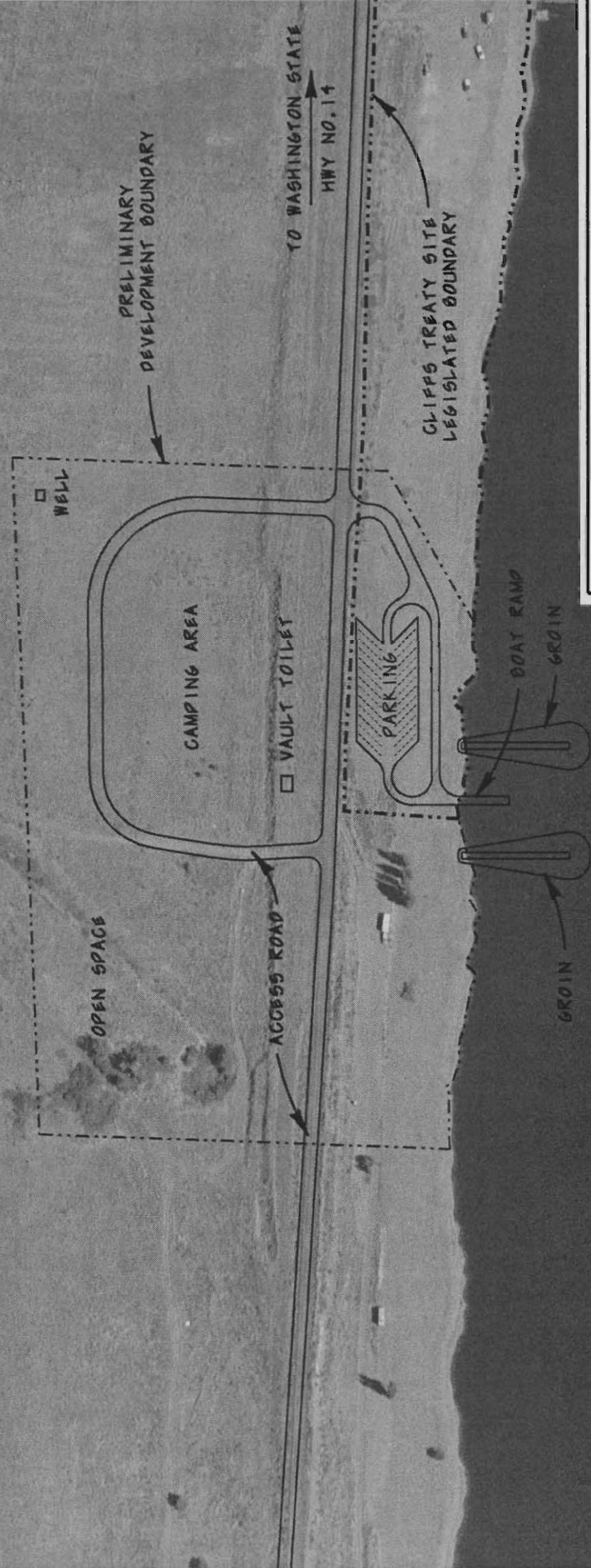
PLATE  
14

THIS SCHEMATIC IDENTIFIES DEVELOPMENT SUITABILITY FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL AND ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE. THE DRAWINGS SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL PLANNING AND DESIGN ARE NECESSARY BEFORE ANY DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT.

PARTINENT DATA  
 STATE - WASHINGTON  
 COUNTY - KLIKITAT  
 RIVER MILE - 214.0  
 ACREAGE - 8.5



PHOTO ENLARGEMENT PREPARED FROM  
 1:24000 SCALE AERIAL PHOTOGRAPHY  
 TAKEN OCTOBER 1989



CONCEPTUAL PLAN OF DEVELOPMENT  
**CLIFFS TREATY FISHING ACCESS SITE  
 ALTERNATIVE 2**

US Army Corps of Engineers  
 Portland District  
 MID-COLUMBIA RIVER PROJECTS  
 MASTER PLAN FOR RESOURCE USE  
 JOHN DAY LOCK AND DAM- THE DALLES POOL  
 DECEMBER 1990



PERTINENT DATA  
 STATE - OREGON  
 COUNTY - SHERMAN  
 RIVER MILE - 212.4  
 ACREAGE - 2.5



SCALE  
 0 50 100

PHOTO ENLARGEMENT PREPARED FROM  
 1/24000 SCALE AERIAL PHOTOGRAPHY  
 TAKEN OCTOBER 1989

COLUMBIA RIVER  
 LAKE CELILO  
 FLOW

NO DEVELOPMENT WITHIN  
 RIPARIAN HABITAT

LEGISLATED BOUNDARY

TRAFFIC CONTROL  
 BOLLARDS

PARKING

INTERSTATE 84

RAILROAD R/W

Vault TOILET

EXISTING  
 ACCESS ROAD

PLANTINGS FOR REVEGETATION

UNION PACIFIC RAILROAD

THIS DRAWING IDENTIFIES THE PROPOSED LEVEL OF DEVELOPMENT  
 FOR THE RIVER ACCESS FACILITIES. THE SITE IMPROVEMENTS ARE  
 BASED ON PRELIMINARY SURFACE RECONNAISSANCE AND SHOULD  
 NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL  
 DESIGN IS NECESSARY BEFORE FINAL DECISIONS CAN BE MADE  
 REGARDING FACILITY DEVELOPMENT AND LOCATION.

# PLAN OF DEVELOPMENT **RUFUS TREATY FISHING ACCESS SITE ALTERNATIVE 1**

EVALUATION REPORT  
 PUBLIC LAW 100-581  
 TITLE IV - COLUMBIA RIVER TREATY  
 FISHING ACCESS SITES, APRIL 1994

PLATE  
**16**

US Army Corps  
 of Engineers  
 Portland District



COLUMBIA RIVER  
LAKE CELILO

FLOW

PERTINENT DATA  
STATE - OREGON  
COUNTY - SHERMAN  
RIVER MILE - 212.4  
ACRES - 2.2

0 150 300  
FEET

PHOTO ENLARGEMENT PREPARED FROM  
1:24000 SCALE AERIAL PHOTOGRAPHY  
TAKEN OCTOBER 1989

NO DEVELOPMENT WITHIN  
RIPARIAN HABITAT

LEGISLATED BOUNDARY

PLANTINGS FOR REVEGETATION

TRAFFIC  
CONTROL  
BOLLARDS

EXISTING  
ACCESS ROAD

VAULT TOILET

INTERSTATE 84

RAILROAD R/W

UNION PACIFIC RAILROAD

THIS SCHEMATIC IDENTIFIED PROPOSED DEVELOPMENT  
FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL  
AND ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE.  
THE DRAWINGS SHOULD NOT BE CONSIDERED ACCURATE TO  
SPECIFIC LOCATIONS. ADDITIONAL PLANNING AND DESIGN  
ARE NECESSARY BEFORE FINAL DECISIONS CAN BE MADE  
REGARDING FACILITY DEVELOPMENT.

# CONCEPTUAL PLAN OF DEVELOPMENT RUFUS TREATY FISHING ACCESS SITE ALTERNATIVE 2



US Army Corps  
of Engineers  
Portland District

EVALUATION REPORT  
PUBLIC LAW 100-501

TITLE IV - COLUMBIA RIVER TREATY  
FISHING ACCESS SITES, AUGUST 1991

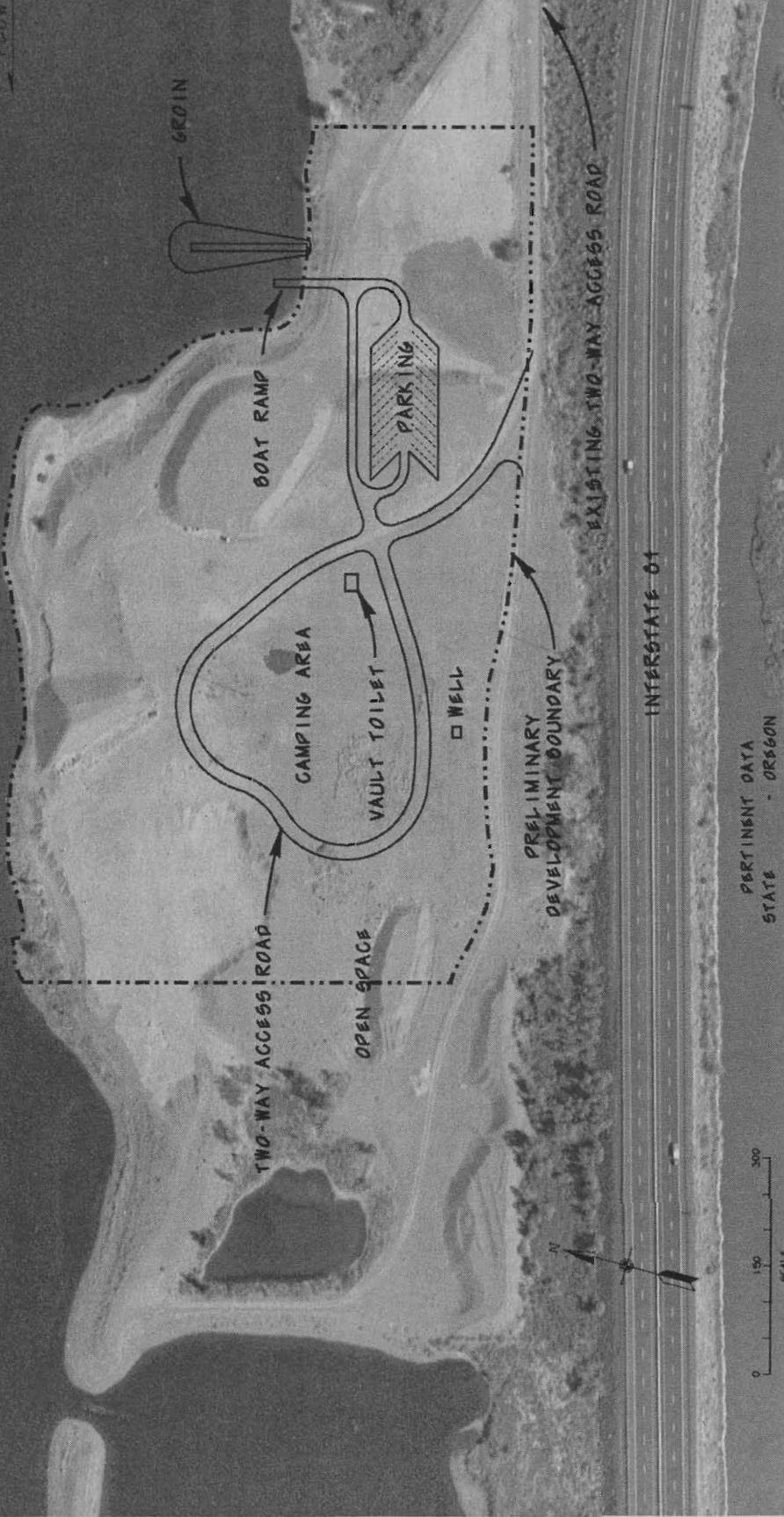
PLATE

17

THIS SCHEMATIC IDENTIFIES DEVELOPMENT SUITABILITY FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL AND ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE. THE DRAWINGS SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL PLANNING AND DESIGN ARE NECESSARY BEFORE ANY DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT.

COLUMBIA RIVER  
LAKE GELILD

PLAN



PERTINENT DATA

STATE - OREGON  
COUNTY - SHERMAN  
RIVER MILES - 212.0  
ACREAGE - 15.4

PHOTO ENLARGEMENT PREPARED FROM  
1:24000 SCALE AERIAL PHOTOGRAPHY  
TAKEN OCTOBER 1989

CONCEPTUAL PLAN OF DEVELOPMENT  
**RUFUS TREATY FISHING ACCESS SITE  
ALTERNATIVE 3**



US Army Corps  
of Engineers  
Portland District

MID-COLUMBIA RIVER PROJECTS  
MASTER PLAN FOR RESOURCE USE  
JOHN DAY LOCK AND DAM-THE DALLES POOL  
DECEMBER 1990

PLATE  
18



COLUMBIA RIVER  
LAKE GELILO

FLOW

PERTINENT DATA  
STATE - OREGON  
COUNTY - SHERMAN  
RIVER MILE - 212.0  
ACREAGE - 4.0

0 120 240  
SCALE

PHOTO ENLARGEMENT PREPARED FROM  
1:24000 SCALE AERIAL PHOTOGRAPHY  
TAKEN OCTOBER 1989

PRELIMINARY  
DEVELOPMENT BOUNDARY

OPEN AREA

VAULT TOILET

PARKING

TWO-WAY ACCESS ROAD

UNION PACIFIC RAILROAD

BOAT RAMP

EXISTING TWO-WAY ACCESS ROAD

RAILROAD R/W

THIS SCHEMATIC IDENTIFIES DEVELOPMENT SUITABILITY FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL AND ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE. THE DRAWINGS SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL PLANNING AND DESIGN ARE NECESSARY BEFORE ANY DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT.

INTERSTATE 84

# CONCEPTUAL PLAN OF DEVELOPMENT RUFUS TREATY FISHING ACCESS SITE ALTERNATIVE 4

US Army Corps  
of Engineers  
Portland District

MID-COLUMBIA RIVER PROJECTS  
MASTER PLAN FOR RESOURCE USE  
JOHN DAY LOCK AND DAM - THE DALLES POOL  
DECEMBER 1990

PLATE  
19

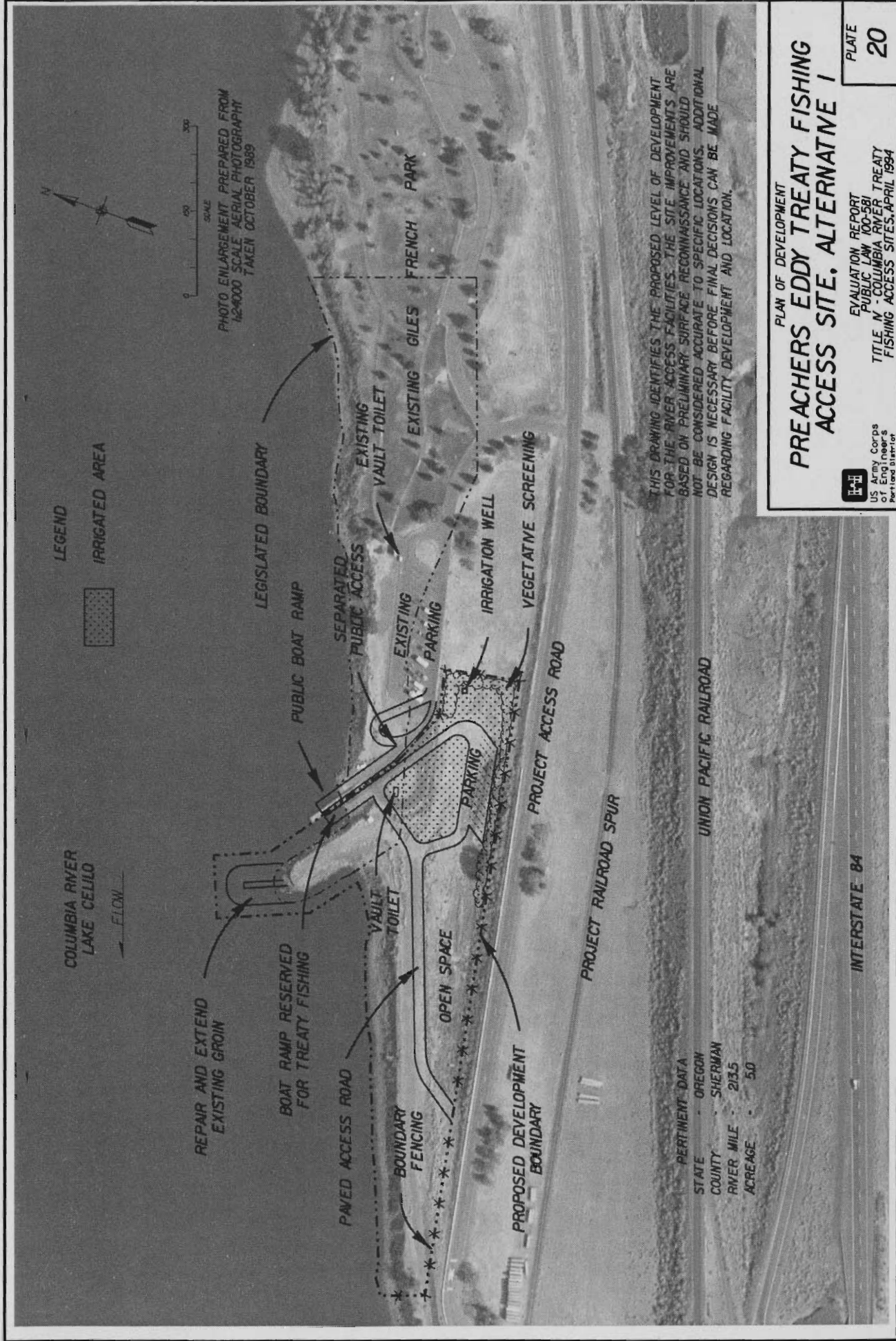


PHOTO ENLARGEMENT PREPARED FROM  
1:24,000 SCALE AERIAL PHOTOGRAPHY  
TAKEN OCTOBER 1989

THIS DRAWING IDENTIFIES THE PROPOSED LEVEL OF DEVELOPMENT FOR THE RIVER ACCESS FACILITIES. THE SITE IMPROVEMENTS ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE AND SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL DESIGN IS NECESSARY BEFORE FINAL DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT AND LOCATION.

PERTINENT DATA  
STATE - OREGON  
COUNTY - SHERMAN  
RIVER MILE - 213.5  
ACREAGE - 5.0

PLAN OF DEVELOPMENT

# PREACHERS EDDY TREATY FISHING ACCESS SITE, ALTERNATIVE 1

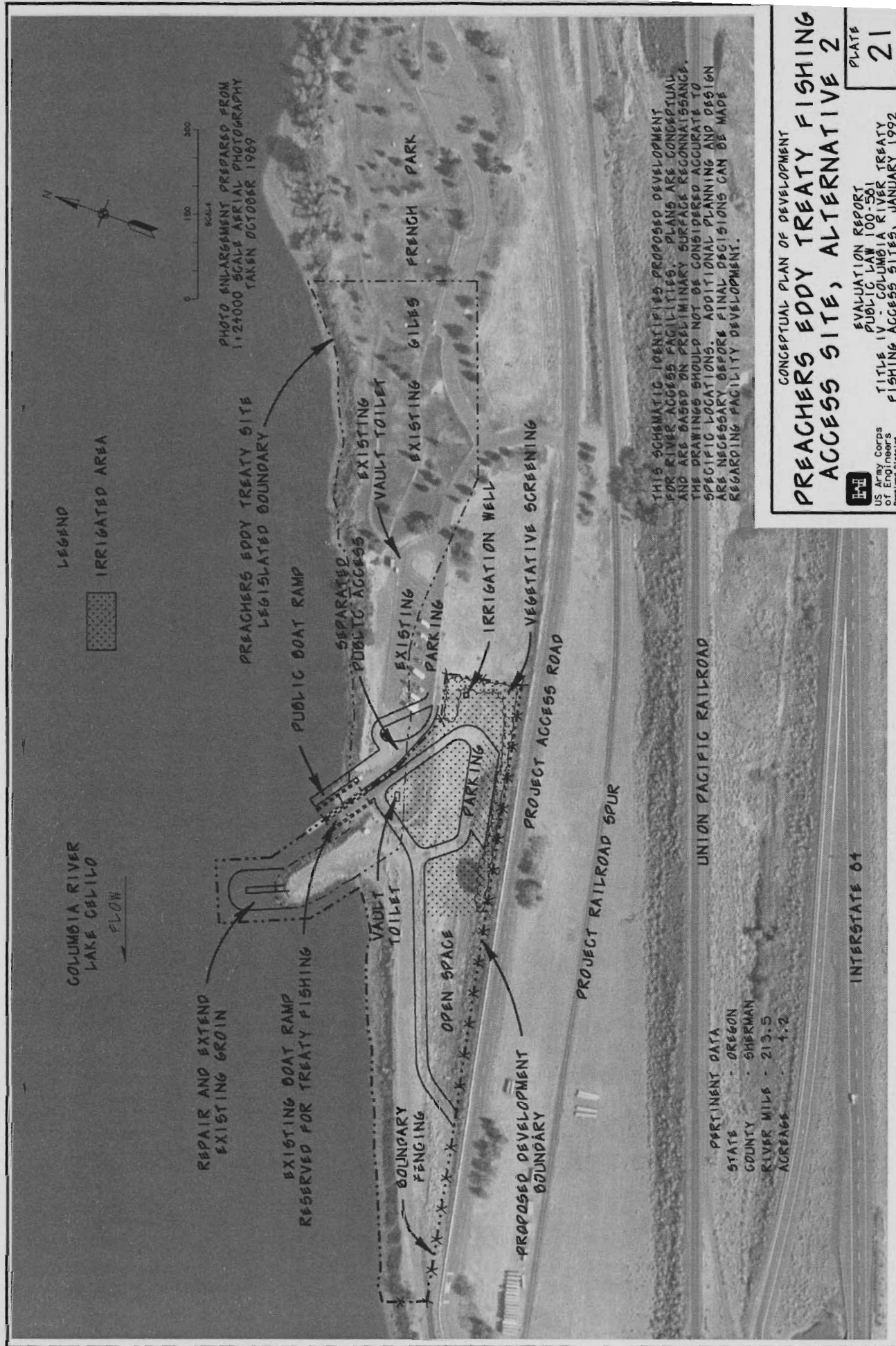
PLATE 20

**US Army Corps of Engineers**  
Portland District

EVALUATION REPORT  
PUBLIC LAW 100-581  
TITLE IV - COLUMBIA RIVER TREATY  
FISHING ACCESS SITES, APRIL 1994

INTERSTATE 84





# CONCEPTUAL PLAN OF DEVELOPMENT **PREACHERS EDDY TREATY FISHING ACCESS SITE, ALTERNATIVE 2**



U.S. Army Corps  
of Engineers  
Portland District

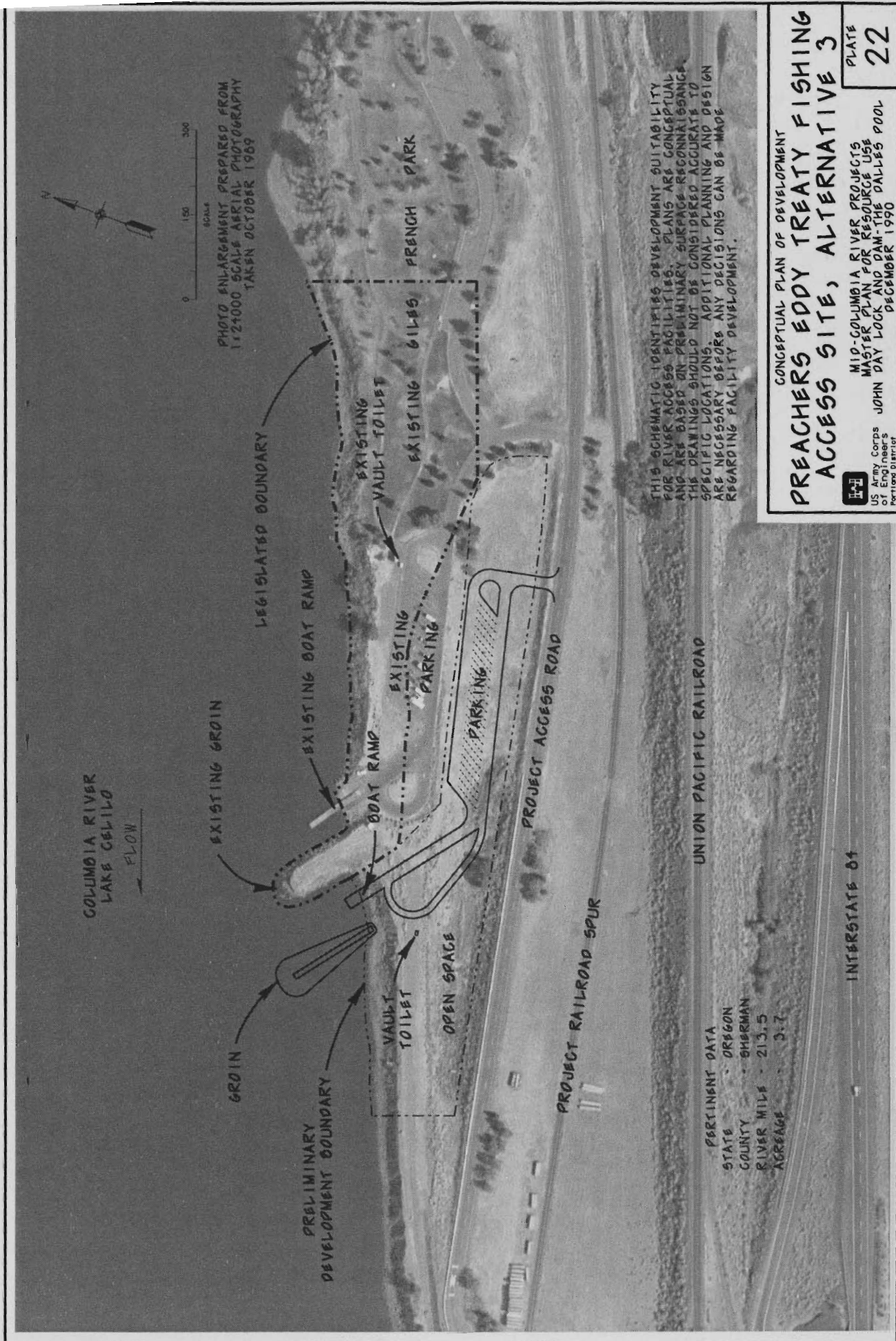
EVALUATION REPORT  
PUBLIC LAW 100-501

TITLE IV - COLUMBIA RIVER TREATY  
FISHING ACCESS SITES, JANUARY 1992

PLATE

21





THIS DRAWING IDENTIFIES THE PROPOSED LEVEL OF DEVELOPMENT FOR THE RIVER ACCESS FACILITIES. THE SITE IMPROVEMENTS ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE AND SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL DESIGN IS NECESSARY BEFORE FINAL DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT AND LOCATION.

LEGISLATED BOUNDARY

EXISTING VAULT TOILET

EXISTING PARKING

EXISTING PAVED ACCESS ROAD

EXISTING BOAT RAMP

NEW BOAT RAMP

GRAVEL PARKING AREA

OPEN AREA

PROPOSED DEVELOPMENT BOUNDARY

RAILROAD R/W

BURLINGTON NORTHERN RAILROAD

RAILROAD ISLAND

COLUMBIA RIVER  
LAKE UMATILLA

FLOW

JOHN DAY DAM

PERTINENT DATA  
STATE - WASHINGTON  
COUNTY - KICKAPAT  
RIVER MILE - 215.9  
ACREAGE - 5.5

0 100 200 300  
SCALE

PHOTO ENLARGEMENT PREPARED FROM  
1:24,000 SCALE AERIAL PHOTOGRAPHY  
TAKEN OCTOBER 1988

PLAN OF DEVELOPMENT

# NORTH SHORE TREATY FISHING ACCESS SITE, ALTERNATIVE I



US Army Corps  
of Engineers  
Portland District

EVALUATION REPORT  
PUBLIC LAW 100-581

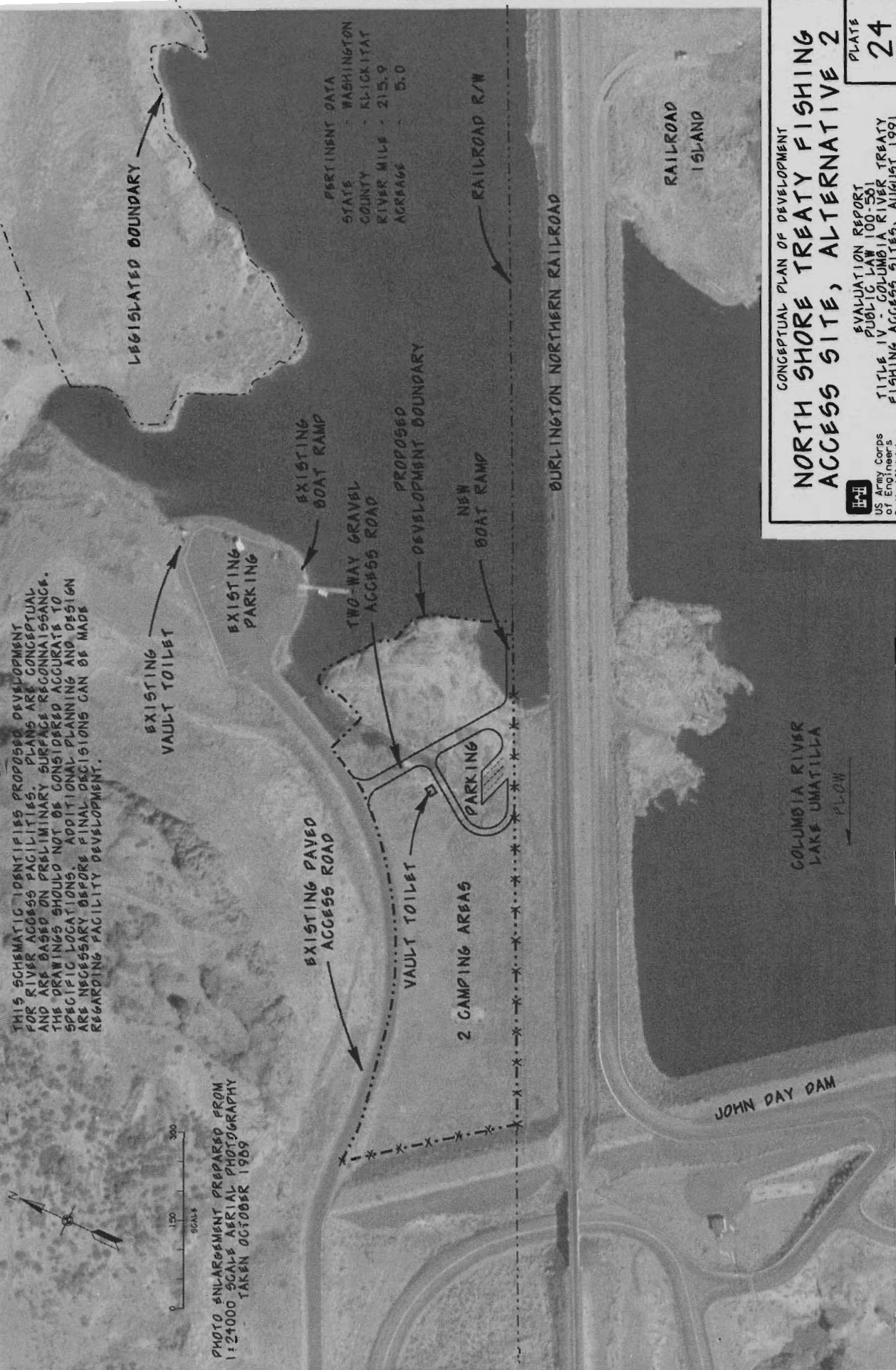
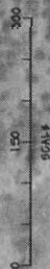
TITLE N - COLUMBIA RIVER TREATY  
FISHING ACCESS SITES, APRIL 1994

PLATE  
23



THIS SCHEMATIC IDENTIFIES PROPOSED DEVELOPMENT FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL AND ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE. THE DRAWINGS SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL PLANNING AND DESIGN ARE NECESSARY BEFORE FINAL DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT.

PHOTO ENLARGEMENT PREPARED FROM  
1:24000 SCALE AERIAL PHOTOGRAPHY  
TAKEN OCTOBER 1969

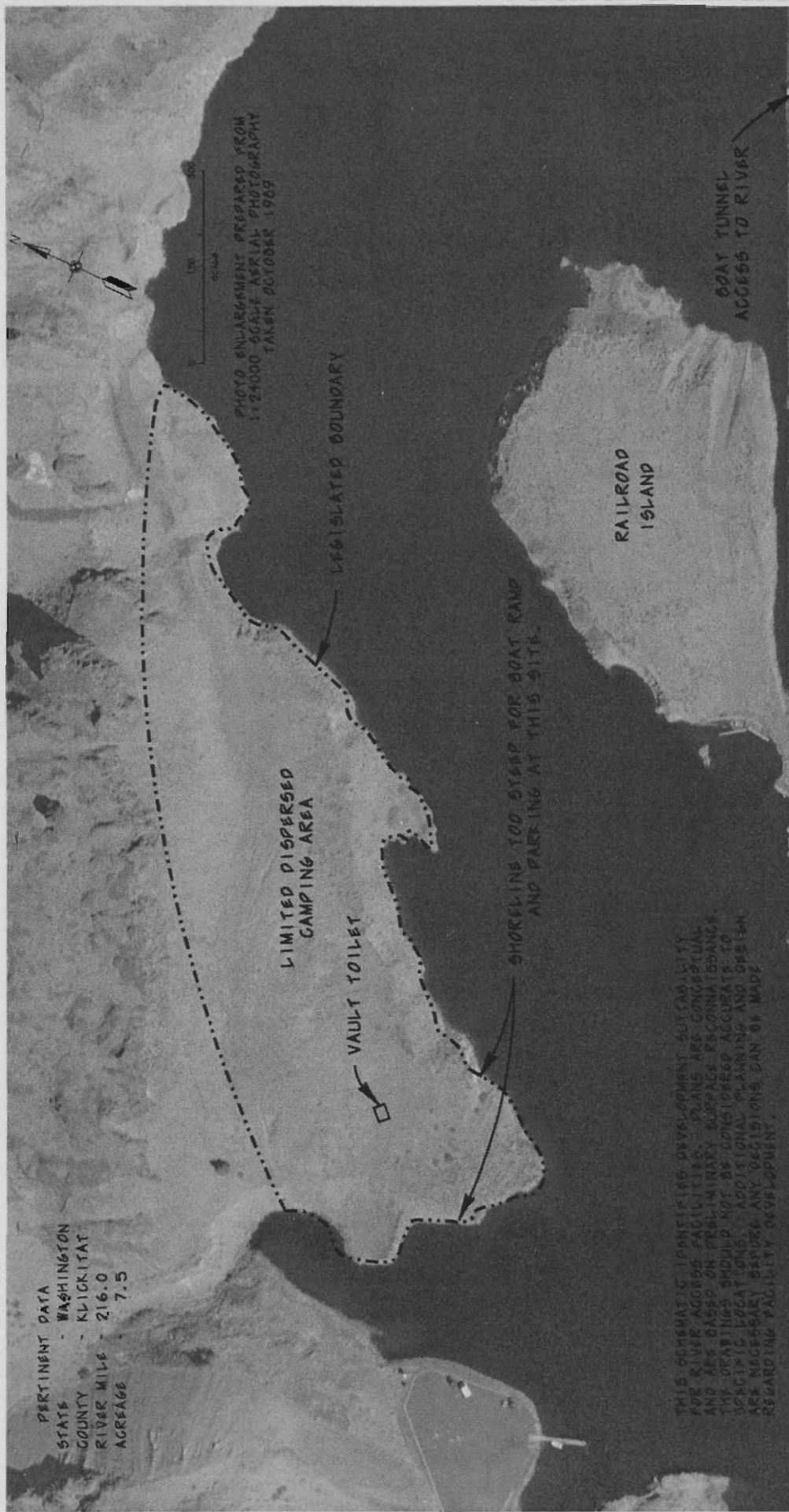


PERTINENT DATA  
STATE - WASHINGTON  
COUNTY - KLIKITAT  
RIVER MILE - 215.9  
ACRES - 5.0

# CONCEPTUAL PLAN OF DEVELOPMENT NORTH SHORE TREATY FISHING ACCESS SITE, ALTERNATIVE 2

US Army Corps  
of Engineers  
PACIFIC DIVISION  
EVALUATION REPORT  
PUBLIC LAW 100-561  
TITLE IV - COLUMBIA RIVER TREATY  
FISHING ACCESS SITES, AUGUST 1991  
PLATE 24

PERTINENT DATA  
 STATE - WASHINGTON  
 COUNTY - KLIKITAT  
 RIVER MILE - 216.0  
 ACREAGE - 7.5



THIS SCHEMATIC IDENTIFIES DEVELOPMENT SUITABILITY  
 FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL  
 AND ARE BASED ON PRELIMINARY SURFACE ELEVATIONS.  
 THE GRABING SHOULD NOT BE CONSIDERED ACCURATE TO  
 SPECIFIC LOCATIONS. ADDITIONAL PLANNING AND DESIGN  
 ARE NECESSARY BEFORE ANY DECISIONS CAN BE MADE  
 REGARDING FACILITY DEVELOPMENT.

# CONCEPTUAL PLAN OF DEVELOPMENT NORTH SHORE TREATY FISHING ACCESS SITE, ALTERNATIVE 3

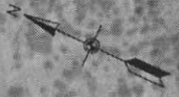
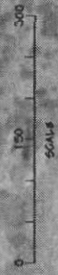
MID-COLUMBIA RIVER PROJECTS  
 MASTER PLAN FOR RESOURCE USE  
 JOHN DAY LOCK AND DAM  
 DECEMBER 1990

US Army Corps  
 of Engineers  
 Portland District



THIS SCHEMATIC IDENTIFIES DEVELOPMENT SUITABILITY FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL AND ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE. THE DRAWINGS SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL PLANNING AND DESIGN ARE NECESSARY BEFORE ANY DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT.

PHOTO ENLARGEMENT PREPARED FROM  
1:24000 SCALE AERIAL PHOTOGRAPHY  
TAKEN OCTOBER 1969



LEGISLATED BOUNDARY

EXISTING VAULT TOILET

EXISTING PARKING

EXISTING BOAT RAMP

NEW BOAT RAMP

VAULT TOILET

PARKING

CAMPING AREA

PRELIMINARY DEVELOPMENT BOUNDARY

PERTINENT DATA  
STATE - WASHINGTON  
COUNTY - KILLICKITAT  
RIVER MILE - 215.9  
ACREAGE - 4.6

DURLINGTON NORTHERN RAILROAD

RAILROAD ISLAND

JOHN DAY DAM

COLUMBIA RIVER  
LAKE UMATILLA

FLOW

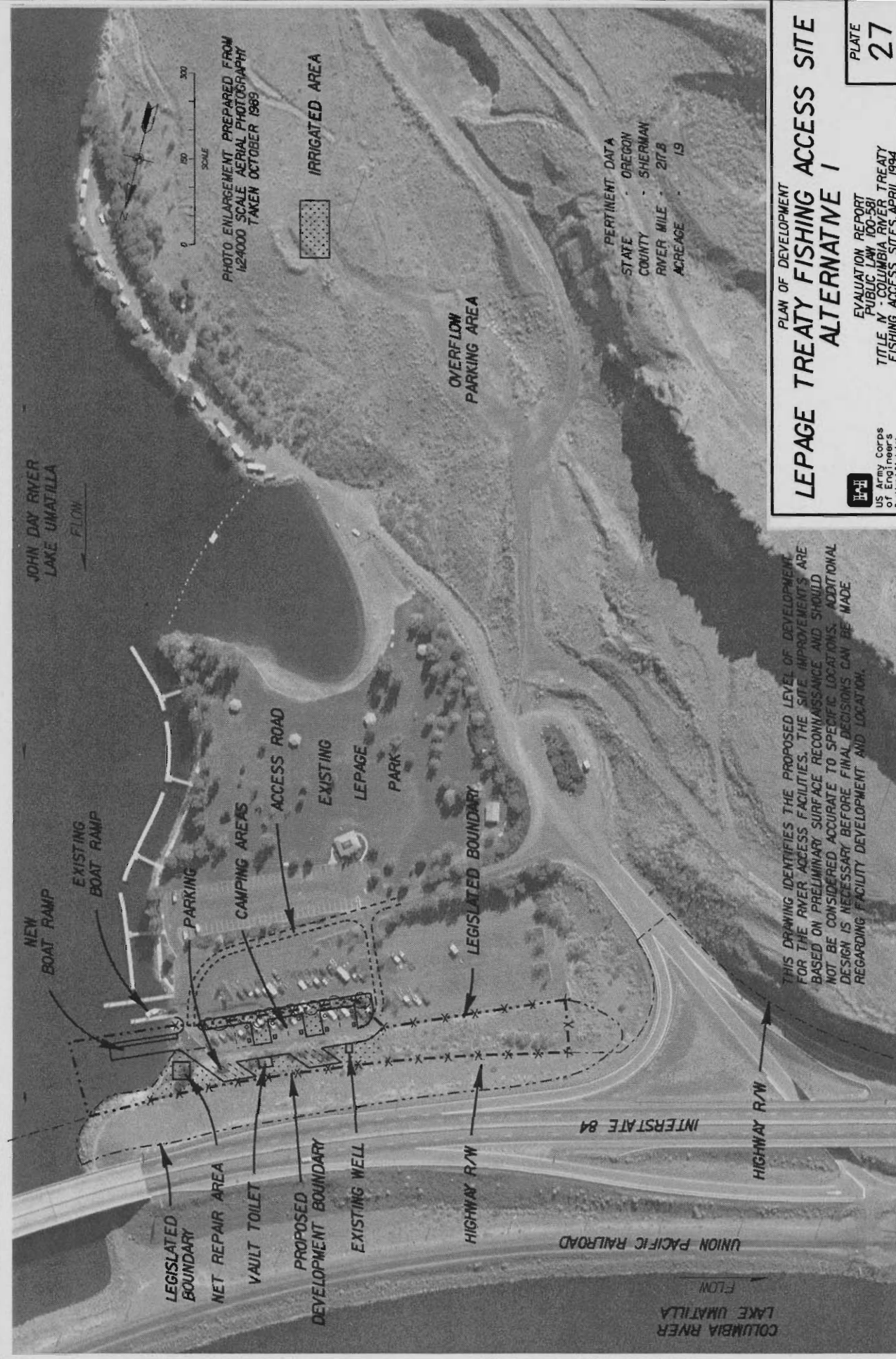
CONCEPTUAL PLAN OF DEVELOPMENT

# NORTH SHORE TREATY FISHING ACCESS SITE, ALTERNATIVE 4

MID-COLUMBIA RIVER PROJECTS  
MASTER PLAN FOR RESOURCE USE  
JOHN DAY LOCK AND DAM  
DECEMBER 1990

US Army Corps  
of Engineers  
Portland District





# PLAN OF DEVELOPMENT LEPAGE TREATY FISHING ACCESS SITE ALTERNATIVE 1

EVALUATION REPORT  
 PUBLIC LAW 100-581  
 TITLE IV COLUMBIA RIVER TREATY  
 FISHING ACCESS SITES, APRIL 1994  
 US Army Corps  
 of Engineers  
 Portland District

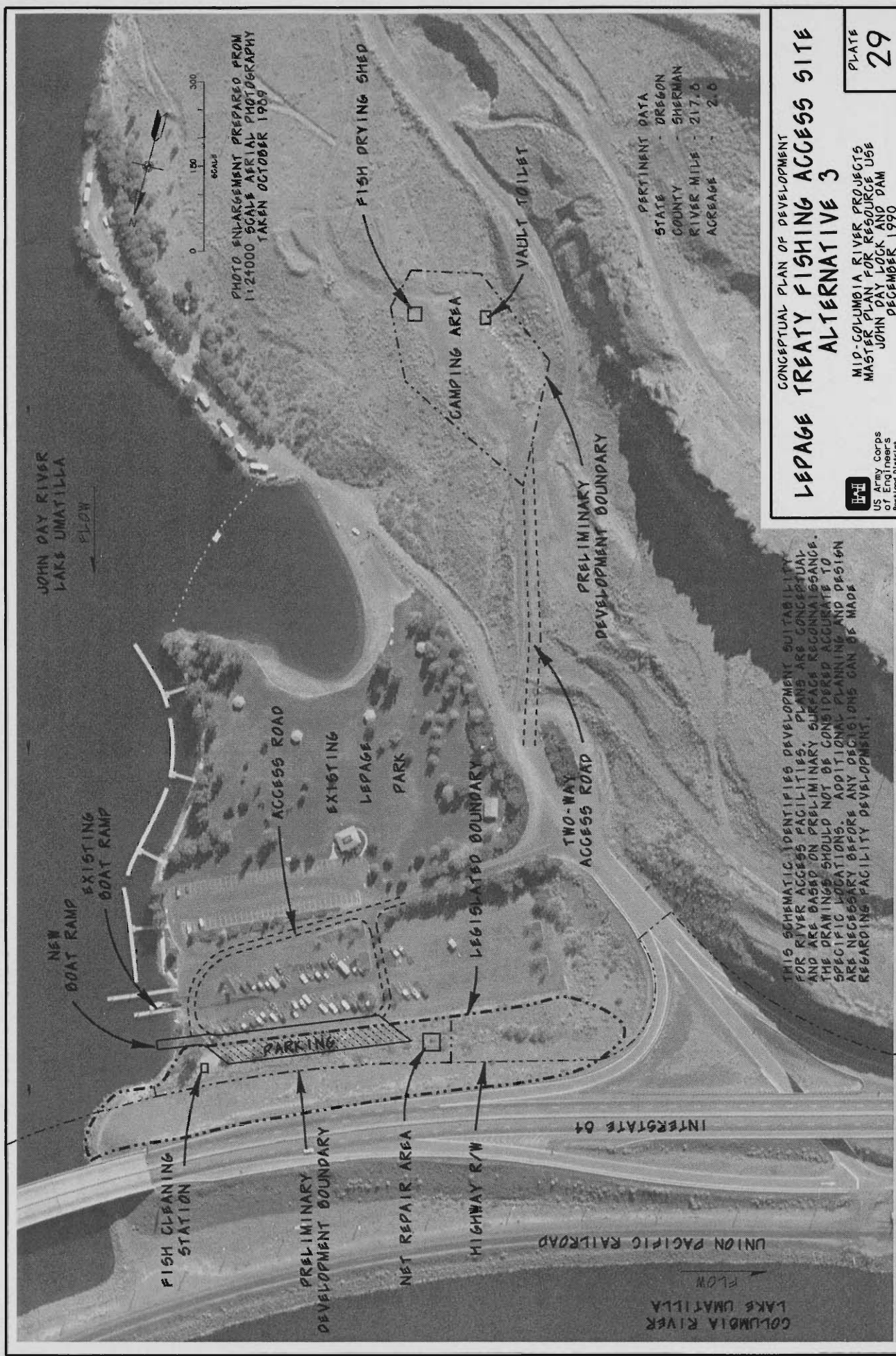
PLATE

27

THIS DRAWING IDENTIFIES THE PROPOSED LEVEL OF DEVELOPMENT  
 FOR THE RIVER ACCESS FACILITIES. THE SITE IMPROVEMENTS ARE  
 BASED ON PRELIMINARY SURFACE RECONNAISSANCE, AND SHOULD  
 NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL  
 DESIGN IS NECESSARY BEFORE FINAL DECISIONS CAN BE MADE  
 REGARDING FACILITY DEVELOPMENT AND LOCATION.







# CONCEPTUAL PLAN OF DEVELOPMENT LEPAGE TREATY FISHING ACCESS SITE ALTERNATIVE 3

U.S. Army Corps of Engineers  
Portland District

MID-COLUMBIA RIVER PROJECTS  
MASTER PLAN FOR RESOURCE USE  
JOHN DAY LOCK AND DAM  
DECEMBER 1990

PLATE 29

WASHINGTON STATE HWY NO.14

THIS DRAWING IDENTIFIES THE PROPOSED LEVEL OF DEVELOPMENT FOR THE RIVER ACCESS FACILITIES. THE SITE IMPROVEMENTS ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE AND SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL DESIGN IS NECESSARY BEFORE FINAL DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT AND LOCATION.

PERTINENT DATA  
STATE - WASHINGTON  
COUNTY - KLUCKITAT  
RIVER MILE - 225.4  
ACREAGE - 5.0

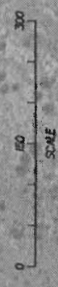


PHOTO ENLARGEMENT PREPARED FROM  
1:24000 SCALE AERIAL PHOTOGRAPHY  
TAKEN OCTOBER 1989

RAILROAD R/W

LEGISLATED  
BOUNDARY

BURLINGTON NORTHERN RAILROAD

RAILROAD R/W

VAULT TOILET

RAILROAD R/W

EXISTING GRAVEL ACCESS  
ROAD FROM PASTURE POINT

PROPOSED BOUNDARY'S  
ARE CONTINUOUS TO  
PASTURE POINT SITE

LEGISLATED  
BOUNDARY

PROPOSED  
DEVELOPMENT BOUNDARY

COLUMBIA RIVER  
LAKE UMATILLA

FLOW

PLAN OF DEVELOPMENT

# GOODNOE TREATY FISHING ACCESS SITE ALTERNATIVE I

EVALUATION REPORT  
PUBLIC LAW 100-581  
TITLE IV - COLUMBIA RIVER TREATY  
FISHING ACCESS SITES, APRIL 1994

PLATE  
30

US Army Corps  
of Engineers  
Portland District



WASHINGTON STATE HWY NO. 14

THIS SCHEMATIC IDENTIFIES PROPOSED DEVELOPMENT FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL AND ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE. THE DRAWINGS SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL PLANNING AND DESIGN ARE NECESSARY BEFORE FINAL DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT.

PERTINENT DATA  
STATE - WASHINGTON  
COUNTY - KLUCKITAT  
RIVER MILES - 225.4  
ACREAGE - 3.3

PHOTO ENLARGEMENT PREPARED FROM  
1:24000 SCALE AERIAL PHOTOGRAPHY  
TAKEN OCTOBER 1959

0 150 300  
SCALE

RAILROAD R/W

LEGISLATED  
BOUNDARY

BURLINGTON NORTHERN RAILROAD

RAILROAD R/W

VAULT TOILET

RAILROAD R/W

GRAVEL ACCESS ROAD  
FROM PASTURE POINT

PROPOSED  
DEVELOPMENT BOUNDARY

LEGISLATED  
BOUNDARY

RAILROAD R/W

COLUMBIA RIVER  
LAKE UMATILLA

FLOW

# CONCEPTUAL PLAN OF DEVELOPMENT GOODNOE TREATY FISHING ACCESS SITE ALTERNATIVE 2

US Army Corps  
of Engineers  
PORTLAND DISTRICT

EVALUATION REPORT  
PUBLIC LAW 100-501  
TITLE IV - COLUMBIA RIVER TREATY  
FISHING ACCESS SITES, AUGUST 1991

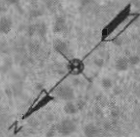
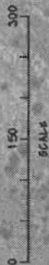
PLATE  
31

WASHINGTON STATE HWY NO. 14

THIS SCHEMATIC IDENTIFIES DEVELOPMENT SUITABILITY FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL AND ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE. THE DRAWINGS SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL PLANNING AND DESIGN ARE NECESSARY BEFORE ANY DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT.

PERTINENT DATA  
STATE - WASHINGTON  
COUNTY - KLUCKITAT  
RIVER MILE - 225.4  
ACREAGE - 2.0

PHOTO ENLARGEMENT PREPARED FROM  
1:24000 SCALE AERIAL PHOTOGRAPHY  
TAKEN OCTOBER 1989



RAILROAD R/W

LEGISLATED  
BOUNDARY

BURLINGTON NORTHERN RAILROAD

RAILROAD R/W

VAULT TOILET

RAILROAD R/W

RAILROAD R/W

LEGISLATED  
BOUNDARY

PRELIMINARY  
DEVELOPMENT BOUNDARY

ACCESS ROAD  
FROM PASTURE POINT

PIPE WATER SUPPLY FROM  
WELL AT PASTURE POINT

COLUMBIA RIVER  
LAKE UMATILLA

FLOW

# CONCEPTUAL PLAN OF DEVELOPMENT 6000NOE TREATY FISHING ACCESS SITE ALTERNATIVE 3

MID-COLUMBIA RIVER PROJECTS  
MASTER PLAN FOR RESOURCE USE  
JOHN DAY LOCK AND DAM  
DECEMBER 1990

US Army Corps  
of Engineers  
Portland District



THIS DRAWING IDENTIFIES THE PROPOSED LEVEL OF DEVELOPMENT FOR THE RIVER ACCESS FACILITIES. THE SITE IMPROVEMENTS ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE AND SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL DESIGN IS NECESSARY BEFORE FINAL DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT AND LOCATION.

PERTINENT DATA  
STATE - WASHINGTON  
COUNTY - KLUCKITAN  
RIVER MILE - 226.5  
ACREAGE - 534

TO WASHINGTON  
STATE HWY  
NO. 14

RAILROAD R/W

AT GRADE CROSSING

BURLINGTON NORTHERN RAILROAD

RAILROAD R/W

EXISTING  
GRAVEL ACCESS ROAD  
TO GOODHOE

PROPOSED BOUNDARIES  
ARE CONTINUOUS TO  
GOODHOE SITE

LEGISLATED  
BOUNDARY

GRAVEL ACCESS ROADS  
OUTSIDE OF CAMPSITE AREAS

VAULT TOILET

WELL

VAULT TOILET

PARKING

SHELTER

CAMPING AREA (1/2)

PAVED ACCESS ROAD  
IN CAMP SITE/BOAT RAMP AREA

PROPOSED BOUNDARIES  
ARE CONTINUOUS TO  
ROCK CREEK SITE

NET REPAIR AREA

BREAKWATER

BOAT RAMP

FISH DRYING  
SHED

DREDGING FOR CHANNEL ACCESS

PROPOSED  
DEVELOPMENT BOUNDARY

COLUMBIA RIVER  
LAKE UMATILLA

FLOW

SCALE  
0 50 100 200

PHOTO ENLARGEMENT PREPARED FROM  
1:24000 SCALE AERIAL PHOTOGRAPH  
TAKEN OCTOBER 1963

PLAN OF DEVELOPMENT

# PASTURE POINT TREATY FISHING ACCESS SITE, ALTERNATIVE 1

US Army Corps  
of Engineers  
Portland District

EVALUATION REPORT  
PUBLIC LAW 100-581  
TITLE IV COLUMBIA RIVER TREATY  
FISHING ACCESS SITES, APRIL 1994

PLATE  
33

THIS SCHEMATIC IDENTIFIES PROPOSED DEVELOPMENT FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL AND ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE. THE DRAWINGS SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL PLANNING AND DESIGN ARE NECESSARY BEFORE FINAL DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT.

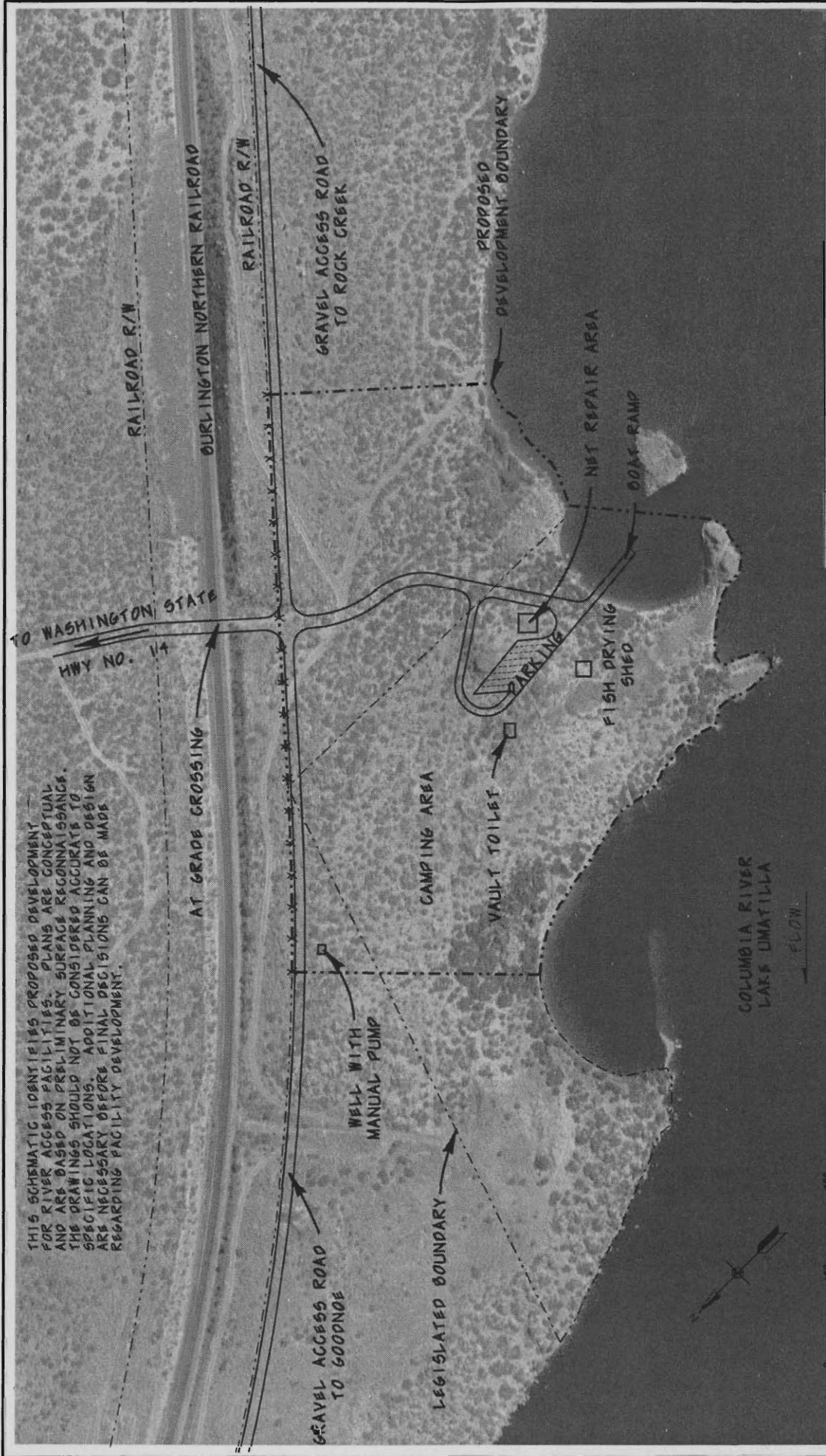


PHOTO ENLARGEMENT PREPARED FROM  
1:24000 SCALE AERIAL PHOTOGRAPHY  
TAKEN OCTOBER 1969

PARTINENT DATA

STATE	WASHINGTON
COUNTY	KLICKITAT
RIVER MILES	226.5
ACREAGE	12.5

CONCEPTUAL PLAN OF DEVELOPMENT

# PASTURE POINT TREATY FISHING ACCESS SITE, ALTERNATIVE 2

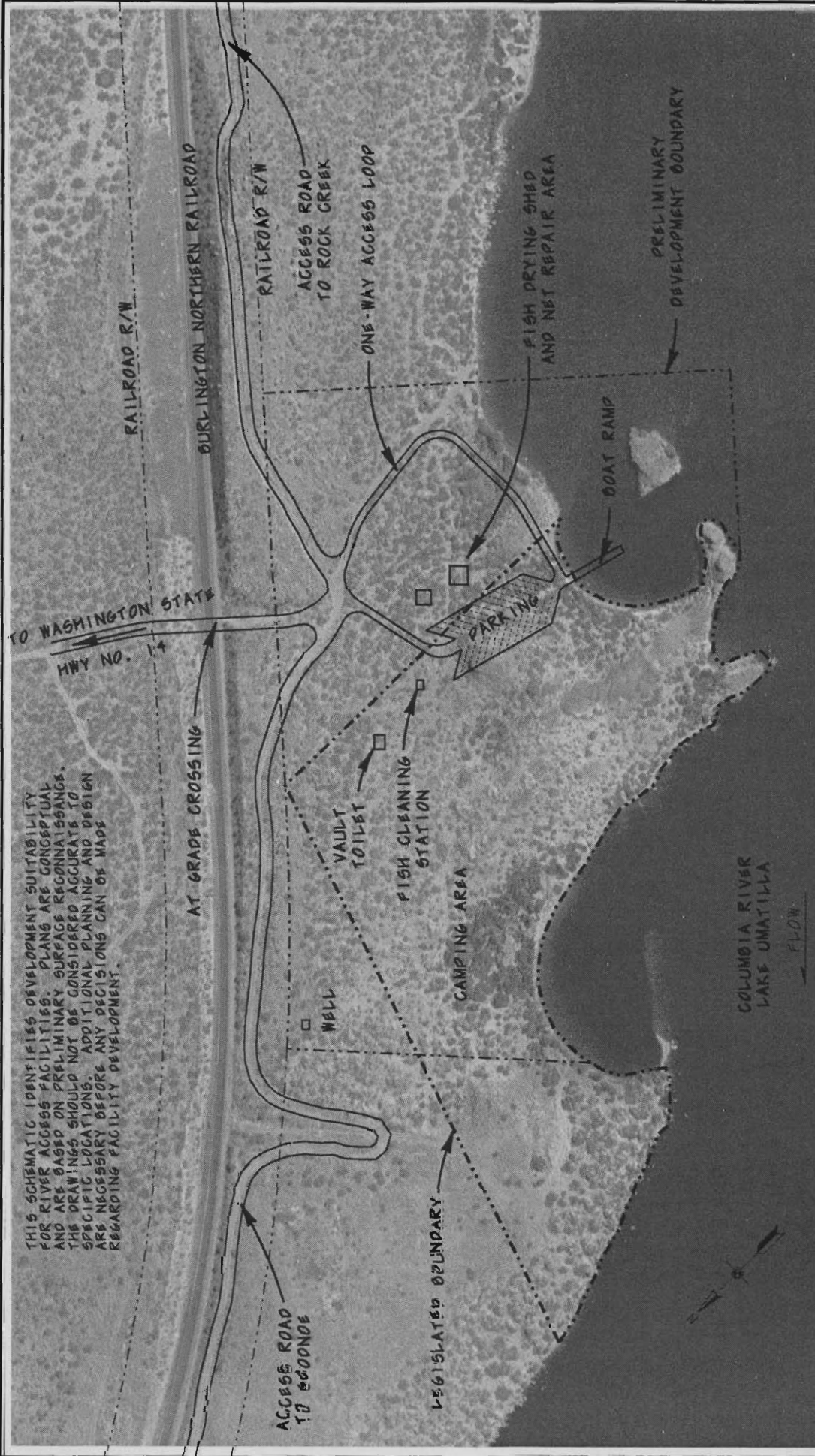
EVALUATION REPORT  
PUBLIC LAW 100-561  
TITLE IV - COLUMBIA RIVER TREATY  
FISHING ACCESS SITES, AUGUST 1991

US Army Corps of Engineers  
Portland District

PLATE 34



THIS SCHEMATIC IDENTIFIES DEVELOPMENT SUITABILITY FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL AND ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE. THE DRAWINGS SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL PLANNING AND DESIGN ARE NECESSARY BEFORE ANY DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT.



PERTINENT DATA  
 STATE - WASHINGTON  
 COUNTY - CLATSOP  
 RIVER MILE - 226.5  
 ACREAGE - 16.0

PHOTO ENLARGEMENT PREPARED FROM  
 1:24000 SCALE AERIAL PHOTOGRAPHY  
 TAKEN OCTOBER 1969

CONCEPTUAL PLAN OF DEVELOPMENT  
**PASTURE POINT TREATY FISHING ACCESS SITE, ALTERNATIVE 3**  
 MID-COLUMBIA RIVER PROJECTS  
 MASTER PLAN FOR RESOURCE USE  
 JOHN DAY LOCK AND DAM  
 DECEMBER 1990

US Army Corps of Engineers  
 Portland District

PLATE 35

PERTINENT DATA  
 STATE - WASHINGTON  
 COUNTY - KLIKITAT  
 RIVER MILE - 227.5  
 ACREAGE - 5.0

WASHINGTON STATE HWY NO. 4

RAILROAD R/W

LEGISLATED  
BOUNDARY

PROPOSED  
DEVELOPMENT BOUNDARY

VAULT TOILET

OPEN SPACE

EXISTING  
STOCKPILE

EXISTING GRAVEL ACCESS ROAD  
FROM PASTURE POINT

BURLINGTON NORTHERN RAILROAD

RAILROAD R/W

PROPOSED BOUNDARIES  
ARE CONTINUOUS TO  
PASTURE POINT SITE

PHOTO ENLARGEMENT PREPARED FROM  
1:24000 SCALE AERIAL PHOTOGRAPHY  
TAKEN OCTOBER 1989

0 150 300  
SCALE

COLUMBIA RIVER  
LAKE UMATILLA  
FLOW

THIS DRAWING IDENTIFIES THE PROPOSED LEVEL OF DEVELOPMENT  
FOR THE RIVER ACCESS FACILITIES. THE SITE IMPROVEMENTS ARE  
BASED ON PRELIMINARY SURFACE RECONNAISSANCE AND SHOULD  
NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL  
DESIGN IS NECESSARY BEFORE FINAL DECISIONS CAN BE MADE  
REGARDING FACILITY DEVELOPMENT AND LOCATION.

PLAN OF DEVELOPMENT

# ROCK CREEK TREATY FISHING ACCESS SITE ALTERNATIVE I

US Army Corps  
of Engineers  
Portland District

EVALUATION REPORT  
 PUBLIC LAW 100-581  
 TITLE IV - COLUMBIA RIVER TREATY  
 FISHING ACCESS SITES, APRIL 1984

PLATE  
 36



PERTINENT DATA  
 STATE - WASHINGTON  
 COUNTY - KLICKITAT  
 RIVER MILE - 227.5  
 ACREAGE - 4.0

WASHINGTON STATE HWY NO. 14

PHOTO ENLARGEMENT PREPARED FROM  
 1:24000 SCALE AERIAL PHOTOGRAPHY  
 TAKEN OCTOBER 1989

0 150 300  
 SCALE

RAILROAD R/W

LEGISLATED  
 BOUNDARY

BURLINGTON NORTHERN RAILROAD

EXISTING  
 STOCKPILE

RAILROAD R/W

PROPOSED  
 DEVELOPMENT BOUNDARY

OPEN SPACE

VAULT TOILET

GRAVEL ACCESS ROAD  
 FROM PASTURE POINT

COLUMBIA RIVER  
 LAKE UMATILLA

FLOW

THIS SCHEMATIC IDENTIFIES PROPOSED DEVELOPMENT FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL AND ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE. THE DRAWINGS SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL PLANNING AND DESIGN ARE NECESSARY BEFORE FINAL DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT.

# CONCEPTUAL PLAN OF DEVELOPMENT ROCK CREEK TREATY FISHING ACCESS SITE, ALTERNATIVE 2

EVALUATION REPORT  
 PUBLIC LAW 100-581

TITLE IV - COLUMBIA RIVER TREATY  
 FISHING ACCESS SITES, AUGUST 1991

US Army Corps  
 of Engineers  
 Portland District

PLATE  
 37

PERTINENT DATA  
 STATE - WASHINGTON  
 COUNTY - KLIKITAT  
 RIVER MILE - 227.5  
 ACREAGE - 5.7

WASHINGTON STATE HWY NO. 14

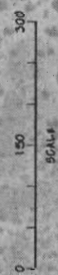


PHOTO ENLARGEMENT PREPARED FROM  
 1:24000 SCALE AERIAL PHOTOGRAPHY  
 TAKEN OCTOBER 1969

RAILROAD R/W

LEGISLATED  
 BOUNDARY

BURLINGTON NORTHERN RAILROAD

EXISTING  
 STOCKPILE

RAILROAD R/W

PRELIMINARY  
 DEVELOPMENT BOUNDARY

CAMPING AREA

VAULT TOILET

ACCESS ROAD  
 FROM PASTURE POINT

PIPE WATER SUPPLY FROM  
 WELL AT PASTURE POINT

COLUMBIA RIVER  
 LAKE UMATILLA

FLOW

THIS SCHEMATIC IDENTIFIES DEVELOPMENT SUITABILITY FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL AND ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE. THE DRAWINGS SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL PLANNING AND DESIGN ARE NECESSARY BEFORE ANY DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT.

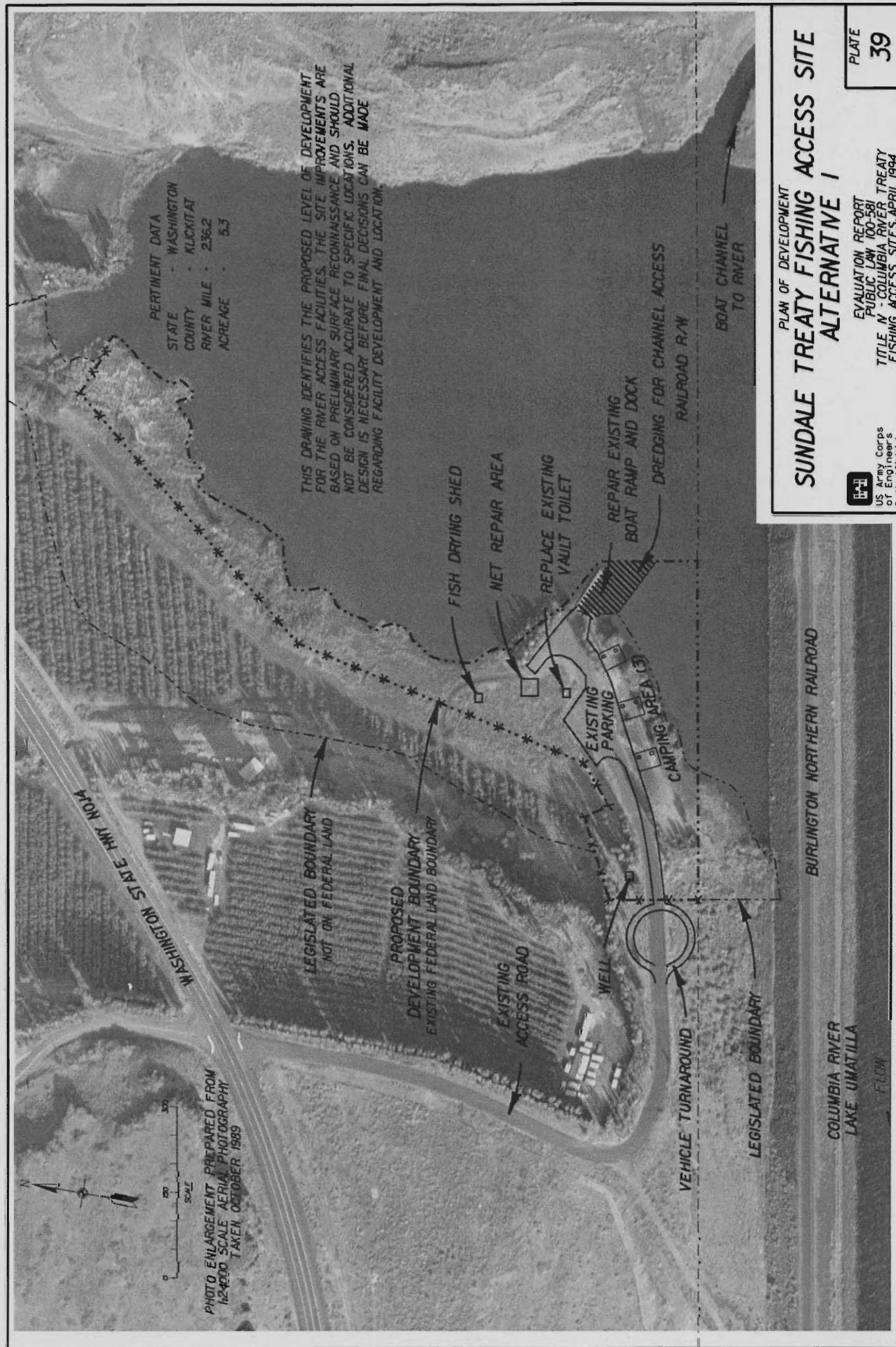
# CONCEPTUAL PLAN OF DEVELOPMENT ROCK CREEK TREATY FISHING ACCESS SITE, ALTERNATIVE 3

PLATE  
 38

MID-COLUMBIA RIVER PROJECTS  
 MASTER PLAN FOR RESOURCE USE  
 JOHN DAY LOCK AND DAM  
 DECEMBER 1990

US Army Corps  
 of Engineers  
 Portland District





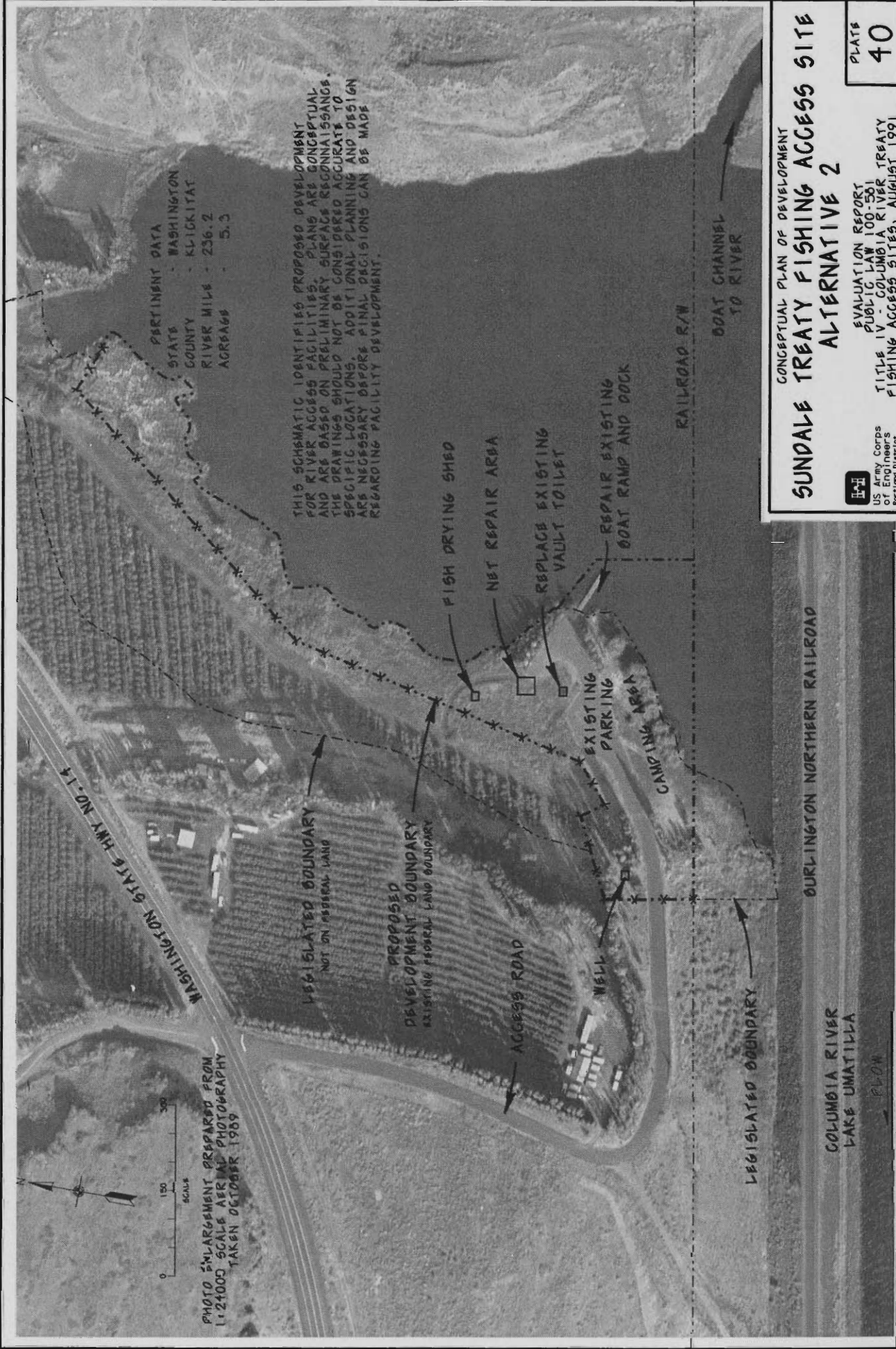
PLAN OF DEVELOPMENT

# SUNDALE TREATY FISHING ACCESS SITE ALTERNATIVE 1

EVALUATION REPORT  
PUBLIC LAW 100-581  
TITLE IV, COLUMBIA RIVER TREATY  
FISHING ACCESS SITES, APRIL 1994

US Army Corps  
of Engineers  
Portland District

PLATE  
39



PERTINENT DATA  
 STATE - WASHINGTON  
 COUNTY - KLICKITAT  
 RIVER MILE - 236.2  
 ACREAGE - 5.3

THIS SCHEMATIC IDENTIFIED PROPOSED DEVELOPMENT FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL AND ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE. THE DRAWINGS SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL PLANNING AND DESIGN ARE NECESSARY BEFORE FINAL DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT.

PHOTO ENLARGEMENT PREPARED FROM  
 1:24000 SCALE AERIAL PHOTOGRAPHY  
 TAKEN OCTOBER 1989

CONCEPTUAL PLAN OF DEVELOPMENT  
**SUNDALE TREATY FISHING ACCESS SITE**  
**ALTERNATIVE 2**

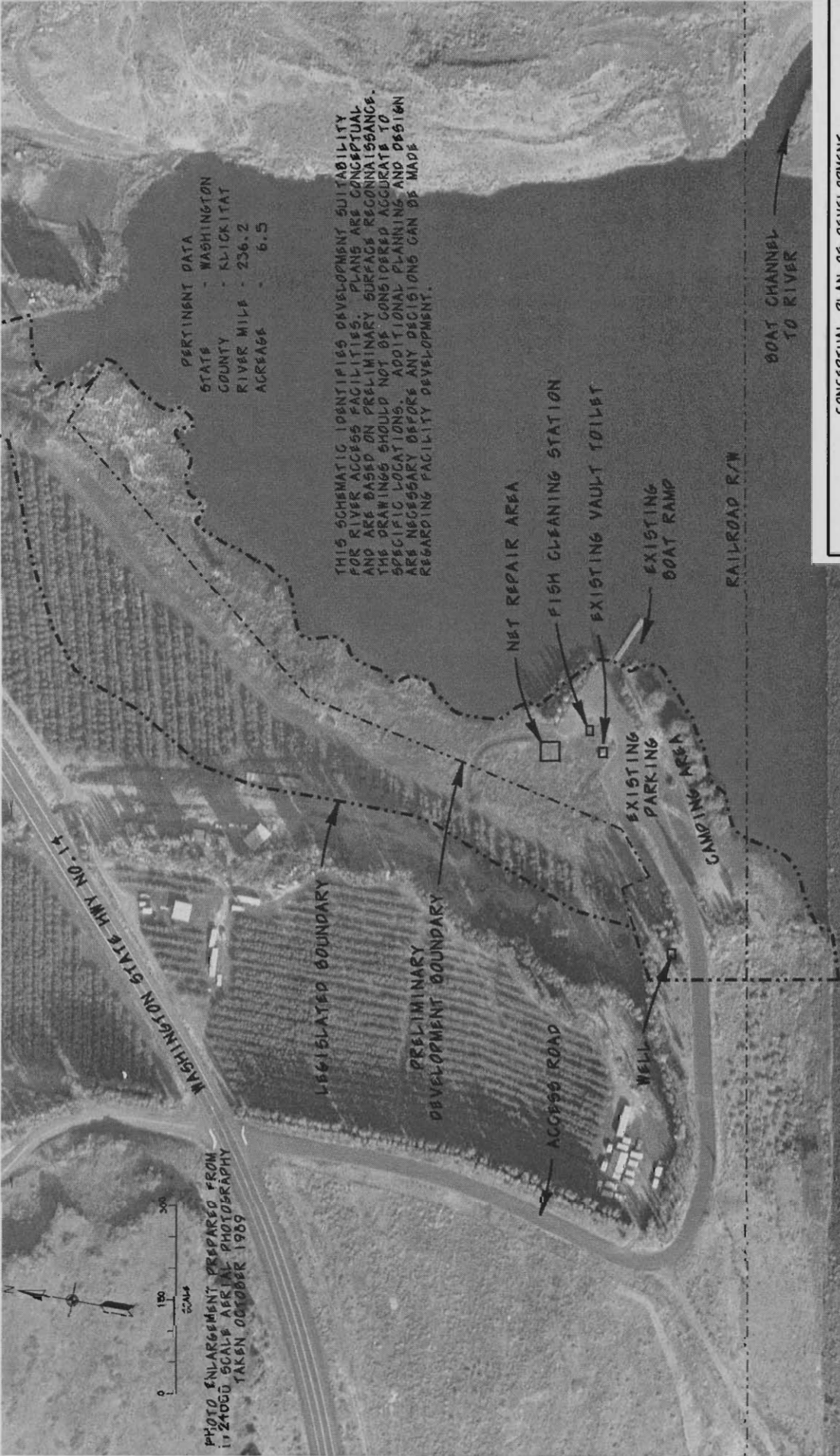
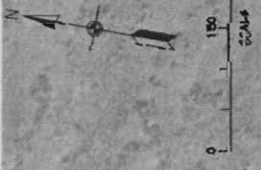
PLATE  
**40**

EVALUATION REPORT  
 PUBLIC LAW 100-501  
 TITLE IV - COLUMBIA RIVER TREATY  
 FISHING ACCESS SITES, AUGUST 1991

US Army Corps  
 of Engineers  
 Portland District



PHOTO ENLARGEMENT PREPARED FROM  
1:24000 SCALE AERIAL PHOTOGRAPHY  
TAKEN OCTOBER 1969



PERTINENT DATA  
STATE - WASHINGTON  
COUNTY - KLIKITAT  
RIVER MILE - 236.2  
ACREAGE - 6.5

THIS SCHEMATIC IDENTIFIES DEVELOPMENT SUITABILITY FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL AND ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE. THE DRAWINGS SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL PLANNING AND DESIGN ARE NECESSARY BEFORE ANY DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT.

US Army Corps  
of Engineers  
Portland District

CONCEPTUAL PLAN OF DEVELOPMENT  
**SUNDALE TREATY FISHING ACCESS SITE**  
**ALTERNATIVE 3**

MID-COLUMBIA RIVER PROJECTS  
MASTER PLAN FOR RESOURCE USE  
JOHN DAY LOCK AND DAM  
DECEMBER 1990

PLATE  
**41**

BURLINGTON NORTHERN RAILROAD

COLUMBIA RIVER  
LAKE UMATILLA

LEGISLATED BOUNDARY

EXISTING  
BOAT RAMP

VAULT  
TOILETS

EXISTING PARKING

TRUCK  
PULL-OUT

VEGETATIVE  
SCREENING

BOUNDARY FENCING

WELL

CAMPING AREAS (8)

TWO-WAY ACCESS ROAD

NET REPAIR AREA

BOAT RAMP

FISH DRYING SHED

EXISTING PARK

LEGEND

IRRIGATED AREA

COLUMBIA RIVER  
LAKE UMATILLA

PROPOSED DEVELOPMENT  
BOUNDARY

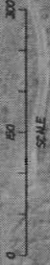


PHOTO ENLARGEMENT PREPARED FROM  
1/2"=1000' SCALE AERIAL PHOTOGRAPHY  
TAKEN OCTOBER 1989

PERTINENT DATA  
STATE WASHINGTON  
COUNTY KLUCKITAN  
RIVER MILE 24.0  
ACREAGE 50

THIS DRAWING IDENTIFIES THE PROPOSED LEVEL OF DEVELOPMENT  
FOR THE RIVER ACCESS FACILITIES. THE SITE IMPROVEMENTS ARE  
BASED ON PRELIMINARY SURFACE RECONNAISSANCE AND SHOULD  
NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL  
DESIGN IS NECESSARY BEFORE FINAL DECISIONS CAN BE MADE  
REGARDING FACILITY DEVELOPMENT AND LOCATION.

PLAN OF DEVELOPMENT

# ROOSEVELT TREATY FISHING ACCESS SITE ALTERNATIVE I

EVALUATION REPORT  
PUBLIC LAW 100-581  
TITLE N - COLUMBIA RIVER TREATY  
FISHING ACCESS SITES, APRIL 1994

US Army Corps  
of Engineers  
Portland District



BURLINGTON NORTHERN RAILROAD

COLUMBIA RIVER  
LAKE UMATILLA

EXISTING  
BOAT RAMP

LEGISLATED BOUNDARY

VEGETATIVE  
SCREENING

EXISTING PARKING

TRUCK  
PULL-OUT

TWO-WAY ACCESS ROAD

VAULT  
TOILETS

NET REPAIR AREA

BOAT RAMP

FISH DRYING SHED

COLUMBIA RIVER  
LAKE UMATILLA

FLOW

PROPOSED DEVELOPMENT  
BOUNDARY

BOUNDARY FENCING

6 CAMPING AREAS

EXISTING PARK

LEGEND



IRRIGATED AREA

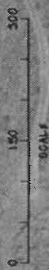


PHOTO ENLARGEMENT PREPARED FROM  
1:24000 SCALE AERIAL PHOTOGRAPHY  
TAKEN OCTOBER 1989



PERTINENT DATA  
STATE - WASHINGTON  
COUNTY - Klickitat  
RIVER MILE - 241.0  
ACRES - 5.3

THIS SCHEMATIC IDENTIFIES PROPOSED DEVELOPMENT  
FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL  
AND ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE.  
THE DRAWINGS SHOULD NOT BE CONSIDERED ACCURATE TO  
SPECIFIC LOCATIONS. ADDITIONAL PLANNING AND DESIGN  
ARE NECESSARY BEFORE FINAL DECISIONS CAN BE MADE  
REGARDING FACILITY DEVELOPMENT.

CONCEPTUAL PLAN OF DEVELOPMENT

# ROOSEVELT TREATY FISHING ACCESS SITE, ALTERNATIVE 2

PLATE

43

EVALUATION REPORT  
PUBLIC LAW 100-501

TITLE IV - COLUMBIA RIVER TREATY  
FISHING ACCESS SITES, JANUARY 1992



US Army Corps  
of Engineers  
Portland District

BURLINGTON NORTHERN RAILROAD

COLUMBIA RIVER  
LAKE UMATILLA

LEGISLATED BOUNDARY

EXISTING PARKING

EXISTING  
BOAT RAMP

CAMPING  
AREA

PARKING

WELL

ONE-WAY ACCESS LOOP

VAULT TOILET

NET REPAIR AREA

FISH DRYING SHED

FISH CLEANING STATION

COLUMBIA RIVER  
LAKE UMATILLA

FLOW

PRELIMINARY  
DEVELOPMENT BOUNDARY

EXISTING PARK

SCALE  
0 150 300

PHOTO ENLARGEMENT PREPARED FROM  
1:24000 SCALE AERIAL PHOTOGRAPHY  
TAKEN OCTOBER 1989

THIS SCHEMATIC IDENTIFIES DEVELOPMENT SUITABILITY  
FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL  
AND ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE.  
THE DRAWINGS SHOULD NOT BE CONSIDERED ACCURATE TO  
SPECIFIC LOCATIONS. ADDITIONAL PLANNING AND DESIGN  
ARE NECESSARY BEFORE ANY DECISIONS CAN BE MADE  
REGARDING FACILITY DEVELOPMENT.

PERTINENT DATA  
STATE WASHINGTON  
COUNTY KILLICKITAT  
RIVER MILE 241.0  
ACREAGE 5.0

# CONCEPTUAL PLAN OF DEVELOPMENT ROOSEVELT TREATY FISHING ACCESS SITE, ALTERNATIVE 4

U.S. Army Corps  
of Engineers  
Portland District  
MID-COLUMBIA RIVER PROJECTS  
MASTER PLAN FOR RESOURCE USE  
JOHN DAY LOCK AND DAM  
DECEMBER 1990

PLATE  
44



THIS DRAWING IDENTIFIES THE PROPOSED LEVEL OF DEVELOPMENT FOR THE RIVER ACCESS FACILITIES. THE SITE IMPROVEMENTS ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE AND SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL DESIGN IS NECESSARY BEFORE FINAL DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT AND LOCATION.

PERTINENT DATA  
 STATE - WASHINGTON  
 COUNTY - KLUCKITAN  
 RIVER MILE - 250.2  
 ACREAGE - 6.9

SCALE  
 0 50 100 200 300

PHOTO ENLARGEMENT PREPARED FROM  
 1:24,000 SCALE AERIAL PHOTOGRAPHY  
 TAKEN OCTOBER 1989

WASHINGTON STATE HWY NO. 14

BURLINGTON NORTHERN RAILROAD

AT GRADE CROSSING

PROPOSED DEVELOPMENT BOUNDARY

LEGISLATED BOUNDARY

TWO-WAY ACCESS ROAD

OPEN SPACE

PARKING

LEGISLATED BOUNDARY

VAULT TOILET

BOAT RAMP

GROIN

COLUMBIA RIVER  
 LAKE UNATILLA

FLOW

PLAN OF DEVELOPMENT

# PINE CREEK TREATY FISHING ACCESS SITE, ALTERNATIVE 1



EVALUATION REPORT  
 PUBLIC LAW 100-581  
 TITLE IV - COLUMBIA RIVER TREATY  
 FISHING ACCESS SITES, APRIL 1984

US Army Corps  
 of Engineers  
 Portland District

PERTINENT DATA  
 STATE - WASHINGTON  
 COUNTY - SHELLETT  
 RIVER MILES - 250.2  
 ACRES - 7.0



SCALE  
 0 100 200 300

PHOTO ENLARGEMENT PREPARED FROM  
 1:24000 SCALE AERIAL PHOTOGRAPHY  
 TAKEN OCTOBER 1969

THIS SCHEMATIC IDENTIFIES PROPOSED DEVELOPMENT  
 FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL  
 AND ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE.  
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 ARE NECESSARY BEFORE FINAL DECISIONS CAN BE MADE  
 REGARDING FACILITY DEVELOPMENT.

AT GRADE CROSSING  
 WASHINGTON STATE HWY NO. 14

DURLINGTON NORTHERN RAILROAD

PROPOSED  
 DEVELOPMENT  
 BOUNDARY

LEGISLATED BOUNDARY

VAULT TOILET

TWO-WAY ACCESS ROAD

OPEN SPACE

PARALLEL  
 PARKING

LEGISLATED BOUNDARY

BOAT  
 RAMP

GROIN

COLUMBIA RIVER  
 LAKE UNATILLA

FLOW

CONCEPTUAL PLAN OF DEVELOPMENT

# PINE CREEK TREATY FISHING ACCESS SITE, ALTERNATIVE 2



US Army Corps  
 of Engineers  
 Portland District

EVALUATION REPORT  
 PUBLIC LAW 100-501  
 TITLE IV - COLUMBIA RIVER TREATY  
 FISHING ACCESS SITES, AUGUST 1991

PLATE  
 46



PERTINENT DATA  
 STATE - WASHINGTON  
 COUNTY - KICKAPAT  
 RIVER MILE - 250.2  
 ACREAGE - 4.6

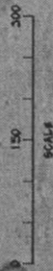


PHOTO ENLARGEMENT PREPARED FROM  
 1:24000 SCALE AERIAL PHOTOGRAPHY  
 TAKEN OCTOBER 1989

WASHINGTON STATE HWY NO. 14

BOURLINGTON NORTHERN RAILROAD

TWO-WAY ACCESS ROAD

RAILROAD R/W

VAULT TOILET

CAMPING AREA

LEGISLATED BOUNDARY

COLUMBIA RIVER  
 LAKE UMATILLA

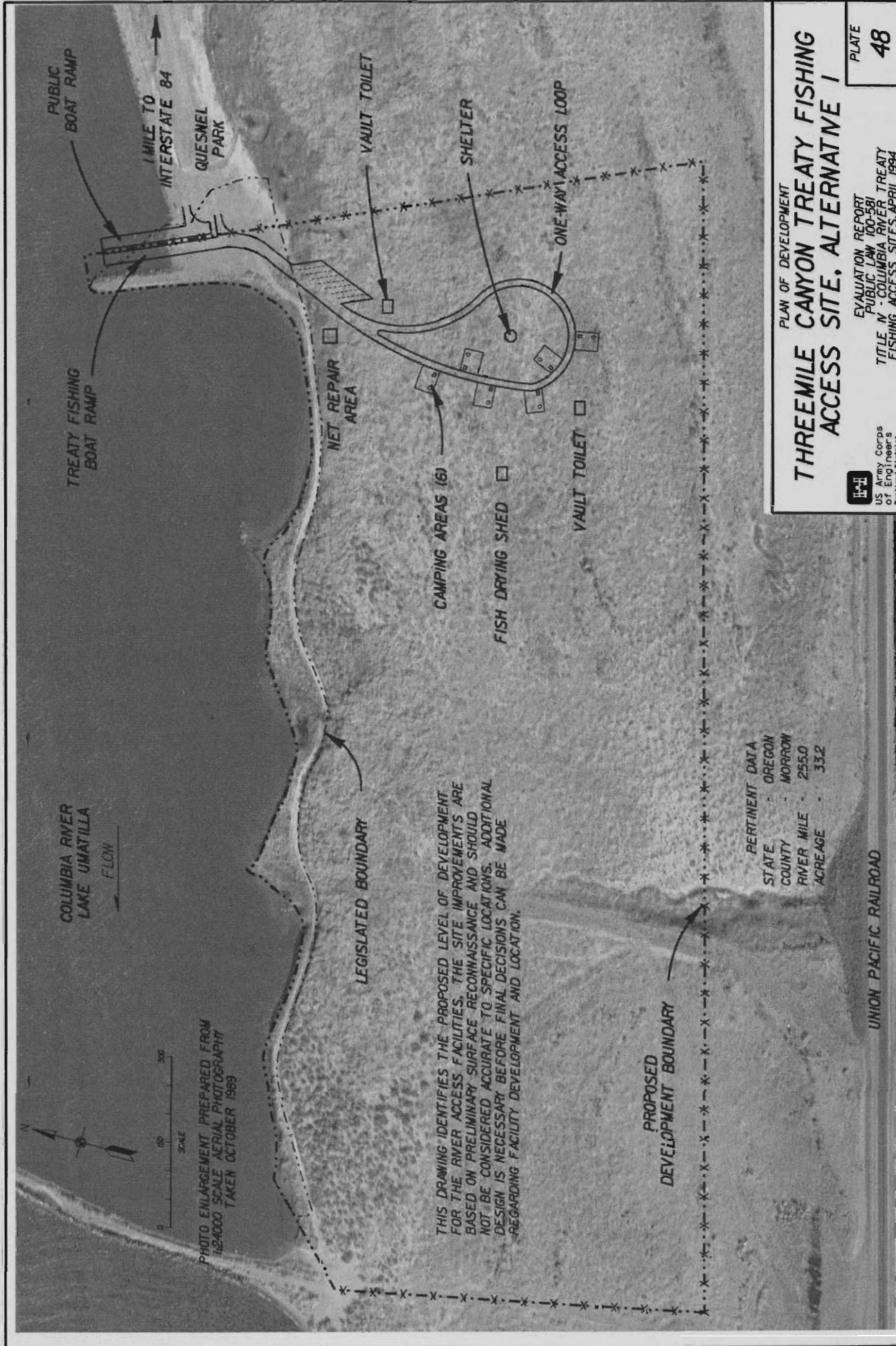
FLOW

THIS SCHEMATIC IDENTIFIES DEVELOPMENT SUITABILITY FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL AND ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE. THE DRAWINGS SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL PLANNING AND DESIGN ARE NECESSARY BEFORE ANY DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT.

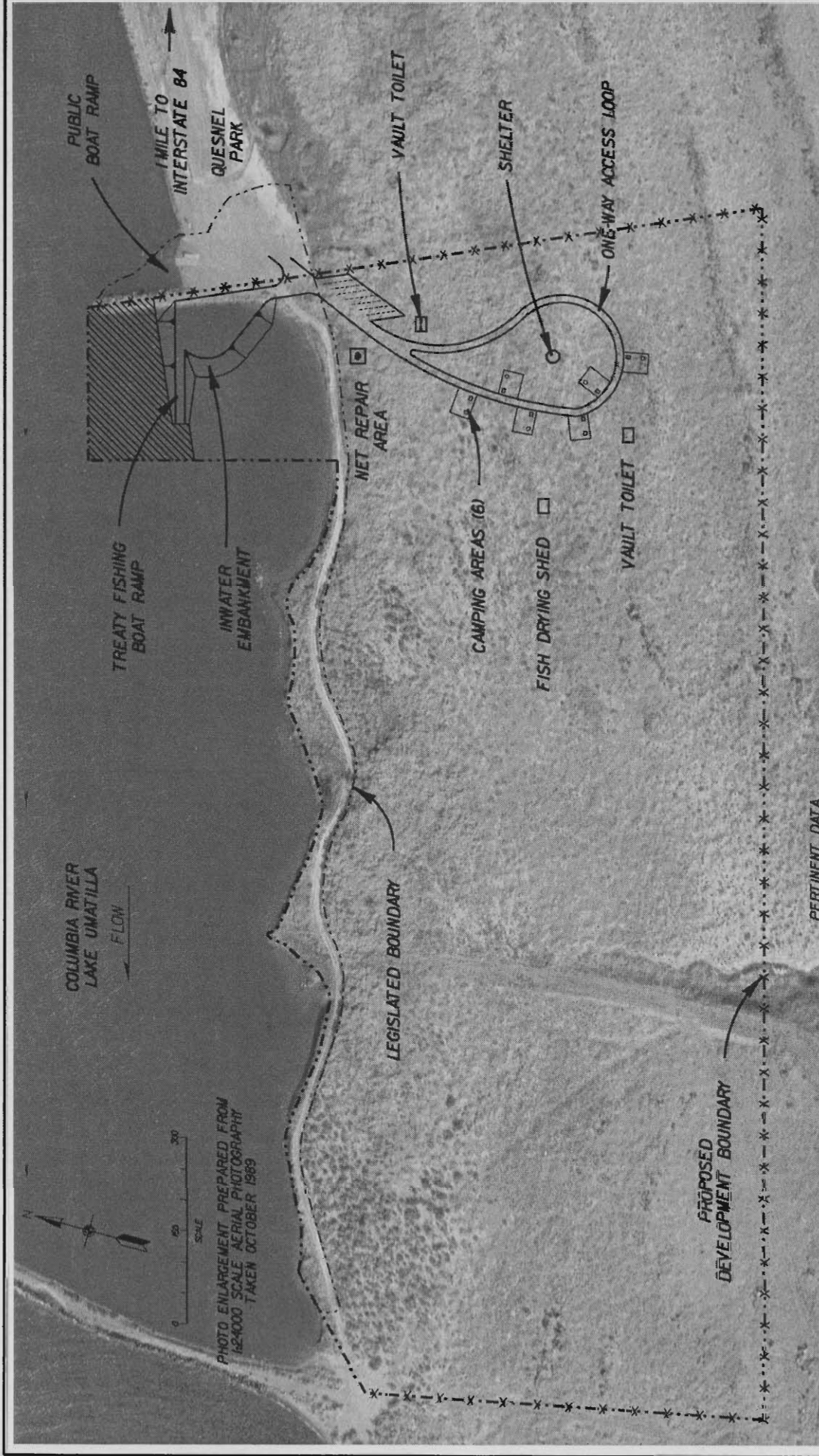
# CONCEPTUAL PLAN OF DEVELOPMENT PINE CREEK TREATY FISHING ACCESS SITE, ALTERNATIVE 4

US Army Corps  
 of Engineers  
 Portland District

MID-COLUMBIA RIVER PROJECTS  
 MASTER PLAN FOR RESOURCE USE  
 JOHN DAY LOCK AND DAM  
 DECEMBER 1990







PERTINENT DATA  
 STATE - OREGON  
 COUNTY - MORROW  
 RIVER MILE - 2550  
 ACREAGE - 332

CONCEPTUAL PLAN OF DEVELOPMENT  
**THREEMILE CANYON TREATY FISHING ACCESS SITE, ALTERNATIVE 2**

US Army Corps of Engineers Portland District  
 EVALUATION REPORT  
 PUBLIC LAW 100-581  
 TITLE IV - COLUMBIA RIVER TREATY  
 FISHING ACCESS SITES, APRIL 1994

COLUMBIA RIVER  
LAKE UMATILLA

FLOW

PERTINENT DATA  
STATE - OREGON  
COUNTY - MORROW  
RIVER MILE - 255.0  
ACRES - 11.2

EXISTING  
BOAT RAMP

1 MILE TO  
INTERSTATE 04

QUESNEL  
PARK

LEGISLATED BOUNDARY

TWO-WAY ACCESS ROAD

BOAT RAMP

NET REPAIR  
AREA

4 CAMPING AREAS

VAULT TOILET

ONE-WAY ACCESS LOOP

FISH DRYING SHED

PROPOSED  
DEVELOPMENT BOUNDARY

THIS SCHEMATIC IDENTIFIES PROPOSED DEVELOPMENT FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL AND ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE. THE DRAWINGS SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL PLANNING AND DESIGN ARE NECESSARY BEFORE FINAL DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT.

0 150 300  
SCALES



PHOTO ENLARGEMENT PREPARED FROM  
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TAKEN OCTOBER 1989

UNION PACIFIC RAILROAD

# CONCEPTUAL PLAN OF DEVELOPMENT THREEMILE CANYON TREATY FISHING ACCESS SITE, ALTERNATIVE 3

**EA**  
US Army Corps  
of Engineers  
Portland District

EVALUATION REPORT  
PUBLIC LAW 100-501  
TITLE IV - COLUMBIA RIVER TREATY  
FISHING ACCESS SITES, AUGUST 1991

PLATE  
50



COLUMBIA RIVER  
LAKE UMATILLA

FLOW

PERTINENT DATA  
STATE - OREGON  
COUNTY - MORRISON  
RIVER MILE - 253.0  
ACREAGE - 10.0

LEGISLATED BOUNDARY

TO INTERSTATE 04

QUESNEL  
PARK

EXISTING  
BOAT RAMP

BOAT RAMP

GROIN

FISH CLEANING STATION

FISH DRYING SHED

NET REPAIR  
AREA

VAULT  
TOILET

CAMPING AREA

ONE-WAY ACCESS LOOP

TWO-WAY ACCESS ROAD

PRELIMINARY  
DEVELOPMENT BOUNDARY

WELL



PHOTO ENLARGEMENT PREPARED FROM  
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TAKEN OCTOBER 1909

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REGARDING FACILITY DEVELOPMENT.

# CONCEPTUAL PLAN OF DEVELOPMENT THREEMILE CANYON TREATY FISHING ACCESS SITE, ALTERNATIVE 4

MID-COLUMBIA RIVER PROJECTS  
MASTER PLAN FOR RESOURCE USE  
JOHN DAY LOCK AND DAM  
DECEMBER 1990

US Army Corps  
of Engineers  
Portland District

UNION PACIFIC RAILROAD

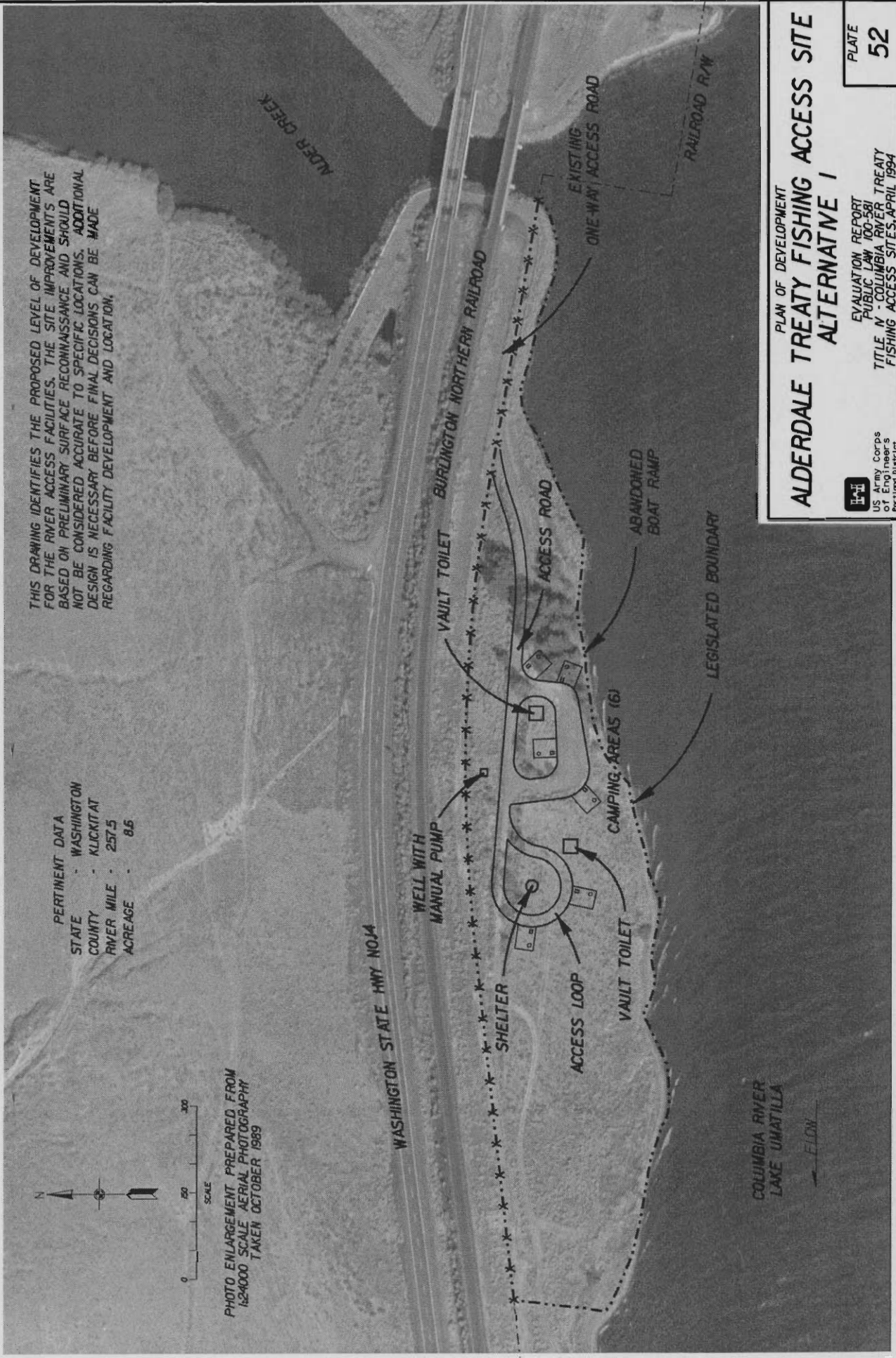
THIS DRAWING IDENTIFIES THE PROPOSED LEVEL OF DEVELOPMENT FOR THE RIVER ACCESS FACILITIES. THE SITE IMPROVEMENTS ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE AND SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL DESIGN IS NECESSARY BEFORE FINAL DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT AND LOCATION.

PERTINENT DATA  
 STATE - WASHINGTON  
 COUNTY - KLIKITAT  
 RIVER MILE - 257.5  
 ACREAGE - 8.6



SCALE  
 0 50 100

PHOTO ENLARGEMENT PREPARED FROM  
 1:24000 SCALE AERIAL PHOTOGRAPHY  
 TAKEN OCTOBER 1989



PLAN OF DEVELOPMENT

# ALDERDALE TREATY FISHING ACCESS SITE ALTERNATIVE 1

**US Army Corps of Engineers**  
 Portland District

EVALUATION REPORT  
 PUBLIC LAW 100-581  
 TITLE IV - COLUMBIA RIVER TREATY  
 FISHING ACCESS SITES, APRIL 1994





PERTINENT DATA  
STATE - WASHINGTON  
COUNTY - KLIKITAT  
RIVER MILE - 257.5  
ACREAGE - 9.5

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1:24000 SCALE AERIAL PHOTOGRAPHY  
TAKEN OCTOBER 1969

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FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL  
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REGARDING FACILITY DEVELOPMENT.

ALDER CREEK

WASHINGTON STATE HWY NO. 14

VEGETATIVE  
SCREENING

WELL WITH  
MANUAL PUMP

BURLINGTON NORTHERN RAILROAD

CAMPING  
AREA

VAULT TOILET

ACCESS LOOP

EXISTING  
PARK

PARALLEL  
PARKING

ACCESS ROAD

ABANDONED  
BOAT RAMP

ONE-WAY ACCESS ROAD

RAILROAD R/W

LEGISLATED BOUNDARY

COLUMBIA RIVER  
LAKE UMATILLA

FLOW

# CONCEPTUAL PLAN OF DEVELOPMENT ALDERDALE TREATY FISHING ACCESS SITE, ALTERNATIVE 2

US Army Corps  
of Engineers  
Portland District

EVALUATION REPORT  
PUBLIC LAW 100-501  
TITLE IV - COLUMBIA RIVER TREATY  
FISHING ACCESS SITES, AUGUST 1991

THIS SCHEMATIC IDENTIFIES DEVELOPMENT SUITABILITY FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL AND ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE. THE DRAWINGS SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL PLANNING AND DESIGN ARE NECESSARY BEFORE ANY DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT.

PERTINENT DATA  
 STATE - WASHINGTON  
 COUNTY - KLIKITAT  
 RIVER MILES - 257.5  
 ACREAGE - 10.6

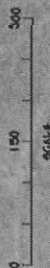
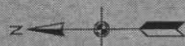


PHOTO ENLARGEMENT PREPARED FROM  
 1:24000 SCALE AERIAL PHOTOGRAPHY  
 TAKEN OCTOBER 1989

ALTERNATE  
 BOAT RAMP  
 SITE

WASHINGTON STATE HWY NO. 14

BURLINGTON NORTHERN RAILROAD

WELL

EXISTING  
 PARKING

ACCESS  
 LOOP

VAULT TOILET

CAMPING AREA

ABANDONED  
 BOAT RAMP

LEGISLATED BOUNDARY

COLUMBIA RIVER  
 LAKE UMATILLA

FLOW

RAILROAD R/W

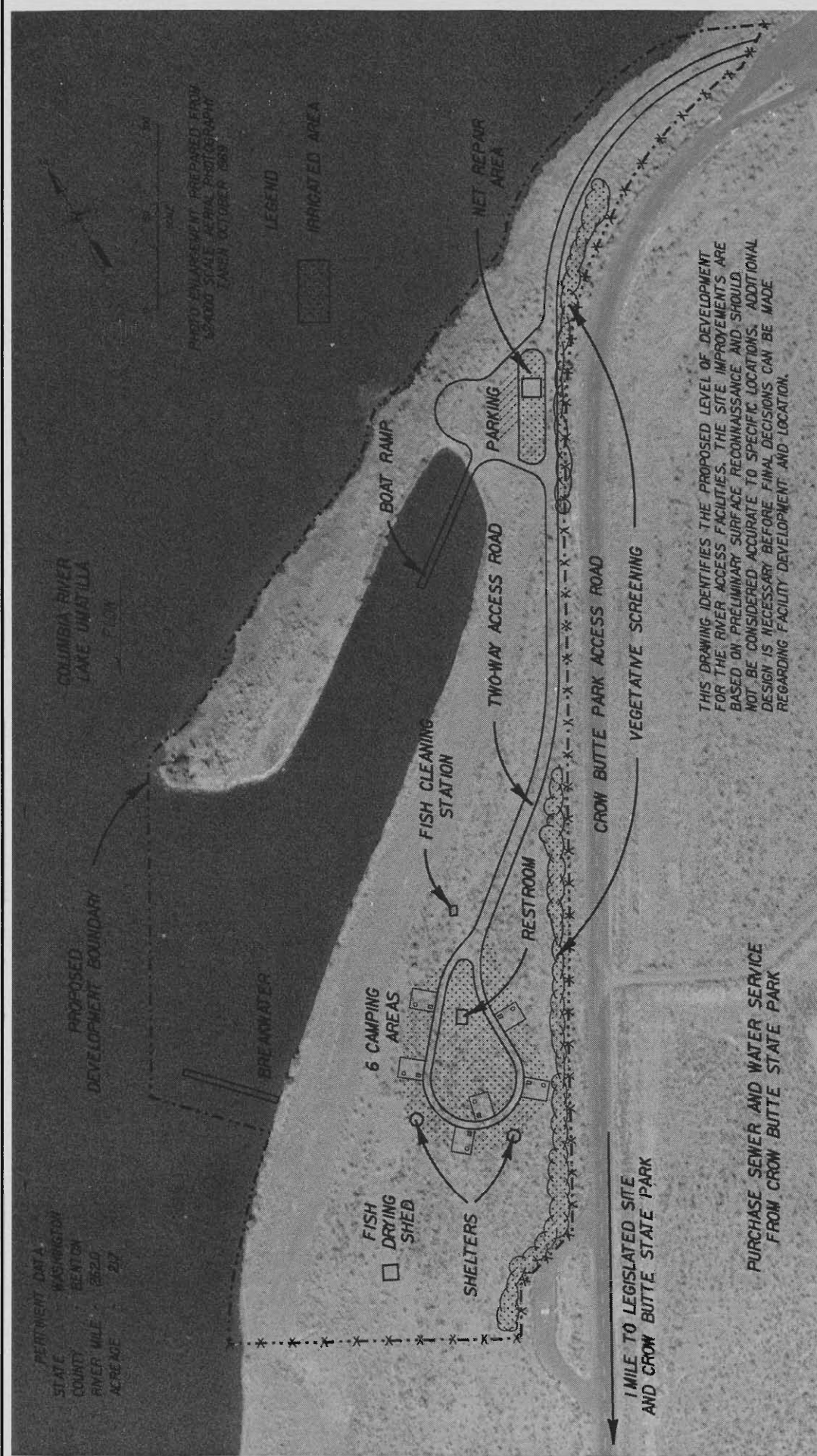
ONE-WAY ACCESS ROAD

# CONCEPTUAL PLAN OF DEVELOPMENT ALDERDALE TREATY FISHING ACCESS SITE, ALTERNATIVE 3

MID-COLUMBIA RIVER PROJECTS  
 MASTER PLAN FOR RESOURCE USE  
 JOHN DAY LOCK AND DAM  
 DECEMBER 1990

US Army Corps  
 of Engineers  
 Portland District





PERTINENT DATA  
 STATE WASHINGTON  
 COUNTY BENTON  
 RIVER MILE 35.20  
 ACREAGE 217

1 MILE TO LEGISLATED SITE  
 AND CROW BUTTE STATE PARK

PURCHASE SEWER AND WATER SERVICE  
 FROM CROW BUTTE STATE PARK

EXISTING  
 SEWAGE LAGOON

PLAN OF DEVELOPMENT  
**CROW BUTTE TREATY FISHING  
 ACCESS SITE, ALTERNATIVE 1**  
 EVALUATION REPORT  
 PUBLIC LAW 100-581  
 TITLE IV - COLUMBIA RIVER TREATY  
 FISHING ACCESS SITES, APRIL 1984  
 US Army Corps  
 of Engineers  
 Portland District  
 PLATE 55

PERMIT DATA  
 STATE WASHINGTON  
 COUNTY SNOHOMISH  
 RIVER MILE 252.0  
 ACRAGE 21.6

COLUMBIA RIVER  
 LAKE UMATILLA

PHOTO SURVEILLANCE STRIPPED FROM  
 1:25000 SCALE AERIAL PHOTOGRAPHY  
 TAKEN OCTOBER 1990

PROPOSED  
 DEVELOPMENT BOUNDARY

NOT REPAIR  
 AREA

BOAT RAMP

FISH CLEANING  
 STATION

PARKING

TWO-WAY ACCESS ROAD

CROW BUTTE PARK ACCESS ROAD

VEGETATIVE SCREENING

6 CAMPING  
 AREAS

RESTROOM

FISH  
 DRYING  
 SHED

PICNIC  
 SHELTERS

1 MILE TO LEGISLATED SITE  
 AND CROW BUTTE STATE PARK

PURCHASE SEWER AND WATER SERVICE  
 FROM CROW BUTTE STATE PARK

EXISTING  
 SEWAGE LAGOON

THIS SCHEMATIC IDENTIFIES PROPOSED DEVELOPMENT  
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 REGARDING FACILITY DEVELOPMENT.

# CONCEPTUAL PLAN OF DEVELOPMENT **CROW BUTTE TREATY FISHING ACCESS SITE, ALTERNATIVE 2**

PLATE  
**56**

EVALUATION REPORT  
 PUBLIC LAW 100-561  
 TITLE IV - COLUMBIA RIVER TREATY  
 FISHING ACCESS SITES, AUGUST 1991  
 US Army Corps  
 of Engineers  
 Portland District

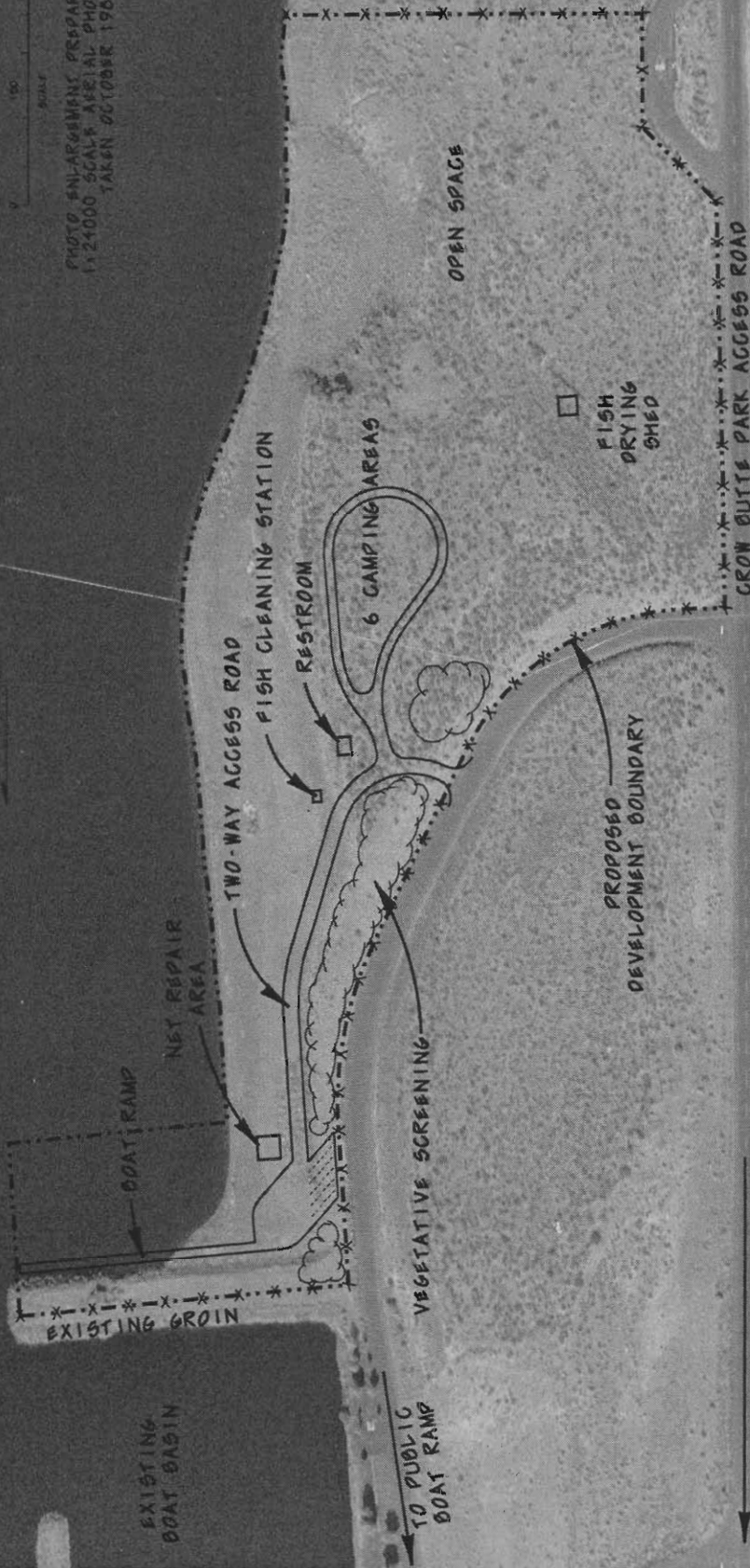


PERTINENT DATA  
 STATE - WASHINGTON  
 COUNTY - BENSON  
 RIVER MILE - 262.0  
 ACREAGE - 17.1

COLUMBIA RIVER  
 LAKE UMATILLA

0 50 100 200  
 FEET  
 SCALE

PHOTO ENLARGEMENT PREPARED FROM  
 1:24000 SCALE AERIAL PHOTOGRAPHY  
 TAKEN OCTOBER 1989



THIS SCHEMATIC IDENTIFIES PROPOSED DEVELOPMENT FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL AND ARE BASED ON PRELIMINARY SURFACE RECONNAISSANCE. THE DRAWINGS SHOULD NOT BE CONSIDERED ACCURATE TO SPECIFIC LOCATIONS. ADDITIONAL PLANNING AND DESIGN ARE NECESSARY BEFORE FINAL DECISIONS CAN BE MADE REGARDING FACILITY DEVELOPMENT.

CONCEPTUAL PLAN OF DEVELOPMENT  
**CROW BUTTE TREATY FISHING ACCESS SITE, ALTERNATIVE 3**  
 EVALUATION REPORT  
 PUBLIC LAW 100-551  
 TITLE IV - COLUMBIA RIVER TREATY  
 FISHING ACCESS SITES, AUGUST 1991  
 US Army Corps of Engineers  
 Portland District

COLUMBIA RIVER  
LAKE UMATILLA

FLOW

0 100 200  
50 Meters

PHOTO ENLARGEMENT PREPARED FROM  
1:24000 SCALE AERIAL PHOTOGRAPHY  
TAKEN OCTOBER 1989

EXISTING  
CROW BUTTE  
STATE PARK

TWO-WAY ACCESS ROAD

LEGISLATED BOUNDARY

ONE-WAY ACCESS LOOP

EXISTING  
LAWN

BOAT RAMP

GROIN

NET REPAIR  
AREA

DRAINFIELD

PARKING

FISH  
CLEANING  
STATION

RESTROOM

CAMPING AREA

WELL

FISH  
DRYING  
SHED

PRELIMINARY  
DEVELOPMENT BOUNDARY

PERTINENT DATA  
STATE WASHINGTON  
COUNTY BENTON  
RIVER MILES 261.5  
ACREAGE 22.0

CONCEPTUAL PLAN OF DEVELOPMENT

# CROW BUTTE TREATY FISHING ACCESS SITE, ALTERNATIVE 4

MID-COLUMBIA RIVER PROJECTS  
MASTER PLAN FOR RESOURCE USE  
JOHN DAY LOCK AND DAM  
DECEMBER 1990

US Army Corps  
of Engineers  
Portland District

PLATE  
58

THIS SCHEMATIC IDENTIFIES DEVELOPMENT SUITABILITY  
FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL  
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PERTINENT DATA  
 STATE - OREGON  
 COUNTY - WAGON  
 RIVER MILE - 267.5  
 ACRES - 6.9

# PLAN OF DEVELOPMENT FALER ROAD TREATY FISHING ACCESS SITE, ALTERNATIVE 1

US Army Corps  
 of Engineers  
 Portland District

EVALUATION REPORT  
 PUBLIC LAW 100-581  
 TITLE IV - COLUMBIA RIVER TREATY  
 FISHING ACCESS SITES, APRIL 1984



# CONCEPTUAL PLAN OF DEVELOPMENT FALER ROAD TREATY FISHING ACCESS SITE, ALTERNATIVE 2

EVALUATION REPORT  
PUBLIC LAW 100-561  
TITLE IV - COLUMBIA RIVER TREATY  
FISHING ACCESS SITES, JANUARY 1992

US Army Corps  
of Engineers  
Portland District

PLATE  
60



COLUMBIA RIVER  
LAKE UMATILLA

FLOW

NOTE:  
NO DEVELOPMENT AT BOARDMAN SITE.  
SEE ADJACENT PRELIMINARY DEVELOPMENT  
BOUNDARY FOR REPLACEMENT AREA.

BOARDMAN TREATY SITE  
LEGISLATED BOUNDARY

PRELIMINARY  
DEVELOPMENT BOUNDARY  
BOARDMAN/PAVER ROAD ALTERNATE

PERTINENT DATA  
STATE - OREGON  
COUNTY - MORROW  
RIVER MILES - 269.1  
ACRES - 11.4

THIS SCHEMATIC IDENTIFIES DEVELOPMENT SUITABILITY  
FOR RIVER ACCESS FACILITIES. PLANS ARE CONCEPTUAL  
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REGARDING FACILITY DEVELOPMENT.

0 100 200 300  
SCALE

PHOTO ENLARGEMENT PREPARED FROM  
1:24000 SCALE AERIAL PHOTOGRAPHY  
TAKEN OCTOBER 1969



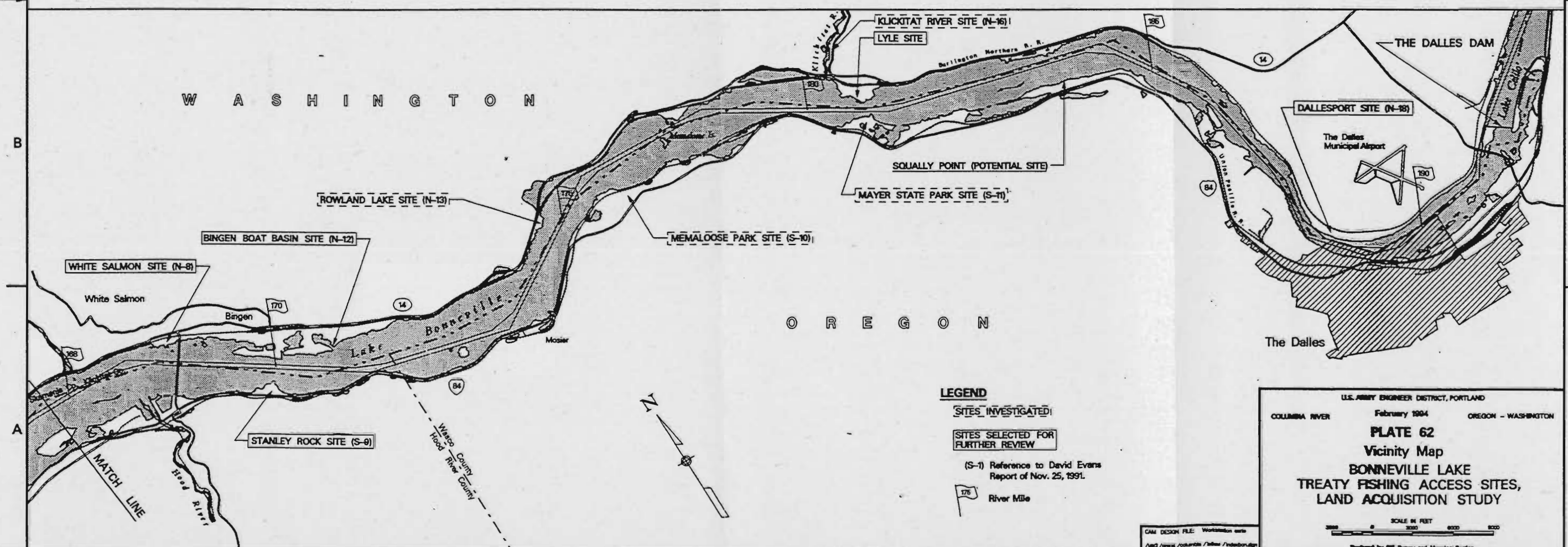
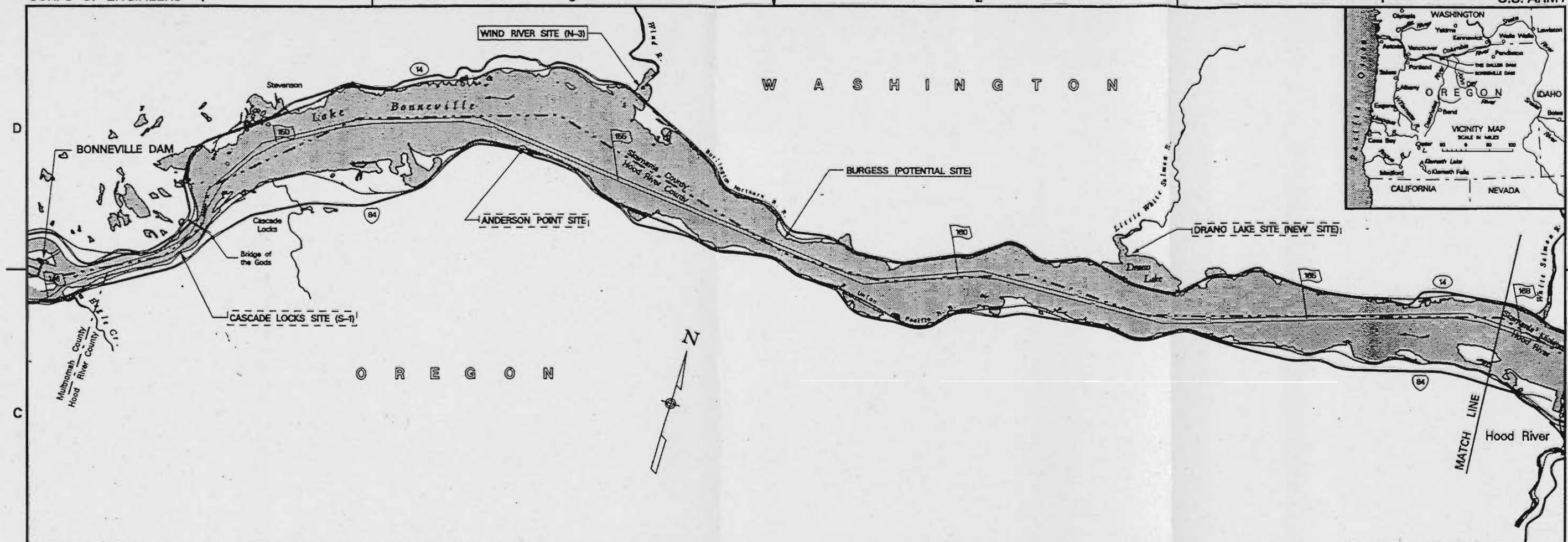
# CONCEPTUAL PLAN OF DEVELOPMENT BOARDMAN TREATY FISHING ACCESS SITE AND ALTERNATE

MID-COLUMBIA RIVER PROJECTS  
MASTER PLAN FOR RESOURCE USE  
JOHN DAY LOCK AND DAM  
DECEMBER 1990

US Army Corps  
of Engineers  
Portland District





**LEGEND**

SITES INVESTIGATED

SITES SELECTED FOR FURTHER REVIEW

(S-1) Reference to David Evans Report of Nov. 25, 1991.

River Mile

U.S. ARMY ENGINEER DISTRICT, PORTLAND  
February 1994  
COLUMBIA RIVER OREGON - WASHINGTON

**PLATE 62**  
Vicinity Map  
BONNEVILLE LAKE  
TREATY FISHING ACCESS SITES,  
LAND ACQUISITION STUDY

SCALE IN FEET  
0 1000 2000 3000

Columbia River Treaty Fishing Access Sites  
Phase Two

**Finding of No Significant Impact (FONSI)**

**Environmental Assessment**



COLUMBIA RIVER TREATY FISHING ACCESS SITES  
PHASE TWO

**Table of Contents**

Finding of No Significant Impact (FONSI)

Introduction .....	EA-1
Environmental Documents .....	EA-3
Purpose and Need for Action .....	EA-3
Proposed Action and Alternatives .....	EA-3
Affected Environment .....	EA-4
In-Lieu Fishing Sites (BIA) .....	EA-8
Section 401(a) Sites .....	EA-9
Environmental Effects .....	EA-9
Existing In-lieu Fishing Sites. ....	EA-9
Section 401(a) sites. ....	EA-9
Physical . ....	EA-9
Biological . ....	EA-12
Recreation. ....	EA-12
Cultural. ....	EA-14
Coordination .....	EA-14
Consultation Requirements .....	EA-15

**Tables and Figures**

Table 1 -- Location of Environmental Assessment Documentation .....	EA-2
Table 2 -- Proposed Facilities at the Treaty Fishing Access Sites .....	EA-5
Table 3 -- Section 401 (a), Phase Two Recommended Sites .....	EA-10
Table 4 -- Cumulative Impacts Summary .....	EA-11
Figure 1 -- Location Map, Legislated Sites .....	EA-7





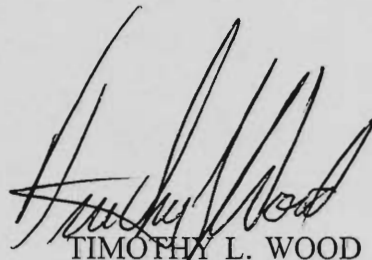
**FINDING OF NO SIGNIFICANT IMPACT  
COLUMBIA RIVER TREATY FISHING ACCESS SITES  
PHASE TWO**

The U.S. Army Corps of Engineers has been authorized by Public Law 100-581 to acquire, develop, and transfer (to the Bureau of Indian Affairs) lands along the Columbia River on Bonneville, The Dalles, and John Day pools in support of treaty fishing of four Treaty Tribes. In general, Title IV of this Act provides that designated sites (also known as Section 401(a) sites) shall be administered to provide access and facilities in support of treaty fishing use of these four Treaty Tribes. In addition, the law directs the Corps of Engineers to conduct facility improvements at five existing in-lieu sites, and to identify, acquire, and improve six sites adjacent to Bonneville Pool for treaty fishing access.

The proposed action described in this Environmental Assessment is to improve or restore facilities at two existing in-lieu sites administered by the Bureau of Indian Affairs (Cooks Inlet/Landing and Wind River, located in Washington) and to provide treaty fishing access at 16 Section 401 (a) sites, including site locations not conforming to the identified locations in the legislation. Acquisition and development of six additional in-lieu sites at the Bonneville pool is also a part of Phase Two; however, this action was evaluated under a separate environmental assessment.

I have reviewed the Environmental Assessment and determined that the proposed action would not significantly affect the quality of the human environment and that an Environmental Impact Statement is not required. Section 404 Evaluations will be prepared as appropriate as planning proceeds.

Date: 5 May 95



TIMOTHY L. WOOD

Colonel, EN  
Commanding



## **Environmental Assessment**

### **Introduction**

In November 1988, Congress passed Public Law 100-581 (P.L. 100-581), Review of Tribal Constitutions and Bylaws. Title IV of this law, Columbia River Treaty Fishing Access Sites, authorized the U.S. Army Corps of Engineers (Corps) to acquire, develop, and transfer lands along the Columbia River on the Bonneville, The Dalles, and John Day pools in support of treaty fishing. The law identified four treaty tribes: the Nez Perce Tribe; the Confederated Tribes of the Umatilla Reservation; the Confederated Tribes of the Warm Springs Reservation of Oregon; and the Confederated Tribes and Bands of the Yakama Indian Nation. In general, Title IV provides that designated sites (also known as Section 401(a) sites) shall be administered to provide access and facilities in support of treaty fishing use to these four Tribes. In addition, the law directs the Corps to identify, acquire, and improve six sites adjacent to Bonneville Pool for treaty fishing access and to conduct facility improvements at five existing in-lieu fishing sites.

The law is specific in identifying the locations of the Section 401(a) fishing access sites. During the planning process on implementing the Corps' responsibility under the law, it became evident that some of the predetermined locations were not suitable for the types of required development. Some sites were wholly or partially on non-federal lands, some were existing parks open to public use, some were geographically or topographically unsuitable.

In an effort to expedite its required action, the Corps, after holding several public meetings and coordinating with the four Tribes, decided to initiate a two-phase program. Phase One originally dealt with improvement of three existing in-lieu sites plus five Section 401(a) sites with few conflicts. The remaining sites, requiring more coordination and resolution of more extensive conflicts, were studied in Phase Two. Separate reports and environmental assessments were prepared for Phase One and Phase Two sites.

Four Phase One sites (Bonneville Area Office; and three existing in-lieu fishing sites--Cascade Locks, Underwood and Lone Pine), all on the Bonneville pool, are proposed for construction in fiscal year 1995. The remaining four Phase One sites, while having few conflicts, will require legislative amendment to adjust boundaries. Final implementation decisions on these are deferred to Phase Two, although all eight Phase One sites were covered in an Environmental Assessment. One site, Faler Road at Boardman, Oregon, was not included in the Finding of No Significant Impact issued on December 16, 1992, for other Phase One sites, but is further examined in the Environmental Assessment for Phase Two sites. While estimated costs of acquisition and development of six sites on Bonneville Pool are included in the Phase Two report, Land Acquisition Study report and environmental assessment specific to that acquisition and development have been prepared and reviewed. A Finding of No Significant Impact was signed July 12, 1994. Table 1 shows which NEPA document applies to each site.



Table 1 -- Location of Environmental Assessment Documentation

Site	Location County/State	Site Type	Legal Basis	NEPA Document (EA)
<b>Legislative</b>				
Bonneville Area Office	Skamania, Washington	TFAS	401(a)	Phase One
Celilo	Wasco, Oregon	TFAS	401(a)	Phase One
Preachers Eddy	Sherman, Oregon	TFAS	401(a)	Phase One
Roosevelt	Klickitat, Washington	TFAS	401(a)	Phase One
Faler Road	Morrow, Oregon	TFAS	401(a)	Phase One/Two
Boardman	Morrow, Oregon	TFAS	401(a)	Phase Two
Rufus	Sherman, Oregon	TFAS	401(a)	Phase Two
Avery	Klickitat, Washington	TFAS	401(a)	Phase Two
Maryhill	Klickitat, Washington	TFAS	401(a)	Phase Two
Cliffs	Klickitat, Washington	TFAS	401(a)	Phase Two
LePage	Sherman, Oregon	TFAS	401(a)	Phase Two
Sundale	Sherman, Oregon	TFAS	401(a)	Phase Two
North Shore	Klickitat, Washington	TFAS	401(a)	Phase Two
Goodnoe	Klickitat, Washington	TFAS	401(a)	Phase Two
Pasture Point	Klickitat, Washington	TFAS	401(a)	Phase Two
Rock Creek	Klickitat, Washington	TFAS	401(a)	Phase Two
Moonay	Klickitat, Washington	TFAS	401(a)	Phase Two
Threemile Canyon	Morrow, Oregon	TFAS	401(a)	Phase Two
Alder Creek	Klickitat, Washington	TFAS	401(a)	Phase Two
Crow Butte	Benton, Washington	TFAS	401(a)	Phase Two
Pine Creek	Klickitat, Washington	TFAS	401(a)	Phase Two
Alderdale	Klickitat, Washington	TFAS	401(a)	Phase Two
<b>In-lieu</b>				
Cascade Locks	Hood River, Oregon	In-lieu	401(b)(1)	Phase One
Underwood	Skamania, Washington	In-lieu	401(b)(1)	Phase One
Lone Pine	Wasco, Oregon	In-lieu	401(b)(1)	Phase One
Wind River	Skamania, Washington	In-lieu	401(b)(1)	Phase Two
Cooks Inlet	Skamania, Washington	In-lieu	401(b)(1)	Phase Two
<b>Acquired</b>				
Lyle	Klickitat, Washington	Acquired	401(b)(3)	Land Acquisition
Wind River	Skamania, Washington	Acquired	401(b)(3)	Land Acquisition
Stanley Rock	Hood River, Oregon	Acquired	401(b)(3)	Land Acquisition
White Salmon	Klickitat, Washington	Acquired	401(b)(3)	Land Acquisition
Dallesport	Klickitat, Washington	Acquired	401(b)(3)	Land Acquisition
Bingen	Klickitat, Washington	Acquired	401(b)(3)	Land Acquisition

TFAS - treaty fishing access site

Acquired - treaty fishing access site to be purchased on the Bonneville Pool

401(a) - section in PL-100-581

401(b)(1) - section in PL-100-581

401(b)(3) - section in PL-100-581

Phase One - Final Phase One Evaluation Report/EA (October 1992)

Phase Two - Draft Phase Two Evaluation Report/EA (January 1995)

Land Acquisition - Final Land Acquisition Study/ EA (July 1994)

## Environmental Documents

This environmental assessment addresses the impacts of the recommended plan. It does not address the impacts of development and transfer of legislated sites beyond the recommended plan. The reasons for proposing changes in legislative sites or boundaries are further explained in the Post-Authorization Change Report prepared by Portland District, August 1994. While Phase Two contains the major actions, there are three levels of actions the Corps is performing in response to P.L. 100-581, including three environmental assessments. The project at issue was authorized by Congress by itself without the usual agency report, recommendation, and environmental documentation. As a result, the authorized project came to the Corps for implementation without Congress having the benefit of the general impacts that a programmatic, umbrella impact statement would have discussed. Once Congress directed the Corps to act, preparation of an umbrella EIS became moot. Congress has funded the Phase One work for construction starting in fiscal year 1994. Phase Two construction work is scheduled for future fiscal year funds. Acquisition of real estate at Bonneville pool is proceeding separately under the original \$2 million authorization.

The National Environmental Policy Act of 1969 (P.L. 91-190), as amended, requires the agency to consider the environmental impacts of its actions before it takes final and irreversible action. With regard to a total umbrella impact statement, the time and place for that should have been before Congress took legislative action. Since Congress enacted P.L. 100-581 without any agency proposal, the preparation of an umbrella impact statement is neither practical or required.

With regard to specific elements of the Columbia Treaty Fishing Access Site program, the agency has prepared separate environmental documentation for each specific element. Since each element is a separable element of the program, the basic logic behind NEPA dictates that they be analyzed as separable elements. After examining the three major program elements, the agency has further determined that an environmental assessment (EA) is the appropriate level of environmental review for each program element at this time. Additional or supplemental environmental documents will be prepared as necessary.

### **Purpose and Need for Action**

The purpose and need for this action is to provide treaty fishing access and facilities for the four Tribes as directed by Title IV of P.L. 100-581.

### **Proposed Action and Alternatives**

The proposed action is to improve or restore facilities at two existing in-lieu fishing sites administered by the Bureau of Indian Affairs (Cooks Inlet/Landing and Wind River, located in Washington) and to provide treaty fishing access at 18 Section 401 (a) sites (including Faler Road). Table 2 lists the sites and depicts specific actions at each site; Figure 1 shows the locations. Acquisition and development of six additional treaty fishing access sites on the

Bonneville pool is also a part of Phase Two. While numerous sites have been evaluated and six sites proposed for additional study, site selection and development plans are in preliminary stages. Thus, except under cumulative impacts, this environmental assessment does not include discussion of the acquisition or development of the six new sites, although this is addressed in a separate Environmental Assessment.

The proposed action includes site locations not conforming to the identified locations in the legislation. The alternative to the proposed action would be to follow the legislated boundaries. This would result in several environmental, social, and design problems, as described in the main report. The alternative of no action would continue the existing situation of inadequate access to reasonable and customary fishing sites for the four Tribes. This alternative is not realistic since the action is mandated by the Congress.

### **Affected Environment**

The Columbia River and its immediate environs in the States of Oregon and Washington, between river mile (RM) 150 and 270, constitute the general area of the proposed action. There is a whole complex of land uses: transportation, residential, urban, commercial, agricultural, and recreational. There are specific areas used by the four Tribes for traditional hunting and fishing. Cultural resources abound. The region contains a wide variety of habitats and associated vegetative communities. Several plant species that are candidates for listing as threatened or endangered occur in the area. There are six major vegetative zones supporting considerable diversity of wildlife. There are several big game species, furbearers, upland game, and terrestrial and aquatic birds. Fisheries resources include anadromous salmonids (including three stocks listed under the Threatened and Endangered Species Act), both wild and hatchery, sturgeon, and several warmwater species. Most of the project area is within the Columbia River Gorge National Scenic Area, administered by the Forest Service. Additional information on the resources of the region can be found in the Main Report. Other government publications such as the Mid-Columbia River Projects Master Plan for Resource Use by the Corps of Engineers, Portland District, 1988; and Columbia River Gorge National Scenic Area, Management Plan prepared by the Forest Service and the Columbia River Gorge Commission, 1992, are useful sources.

Two bird species listed under the Endangered Species Act, bald eagles and peregrine falcons, rest and range over the project area. They are especially attracted to areas where concentrations of waterfowl, shorebirds, rock doves, or other birds may be high. The National Marine Fisheries Service (NMFS) has listed the Snake River sockeye salmon as endangered. The Snake River spring/summer and fall chinook, listed as threatened, have been relisted as endangered under an interim emergency ruling.

Project locations include sites on the Columbia within three major lakes created by dams: Lake Bonneville, Lake Celilo, and Lake Umatilla.

Table 2 -- Proposed Facilities at the Treaty Fishing Access Sites

	RIVER ACCESS				SITE ACCESS				FISHING FACILITIES			
SITE	Boat Ramp	Dock	Groin	Dredge	Road	RR Crossing	Parking	Fencing	Cleaning Station	Net Repair	Drying Sheds	
Celilo	yes	yes	yes	yes	yes	existing	15	yes	yes	yes	yes	
P. Eddy	yes	yes	rehab	no	yes	no	12	yes	no	no	no	
Roosevelt	yes	yes	existing	no	yes	no	8	yes	no	yes	yes	
Faler Road	no	no	no	no	yes	no	8	yes	yes	yes	yes	
Avery	yes	yes	rehab	minor	yes	existing	6 gravel	no	no	no	no	
Rufus	no	no	no	no	yes	no	2 paved	no	no	no	no	
Maryhill	yes	yes	yes	yes	yes	no	15 paved	yes	yes	yes	yes	
N. Shore	yes	yes	no	no	yes	no	4 gravel	yes	no	no	no	
Lepage	yes	yes	no	no	yes	no	15 paved	yes	no	yes	no	
Goodnoe	no	no	no	no	yes	no	2 gravel	yes	no	no	no	
P. Point	yes	yes	yes	yes	yes	yes	8 paved	yes	no	yes	yes	
Rock Creek	no	no	no	no	yes	no	2 gravel	yes	no	no	no	
Sundale	rehab	yes	no	minor	yes	no	8 paved	yes	no	yes	yes	
***** NO DEVELOPMENT *****												
Moonay	yes	yes	yes	no	yes	new	10 paved	yes	no	no	no	
Pine Creek	yes	yes	no	yes	yes	no	8 paved	yes	no	yes	yes	
Threemile												
Alderdale	no	no	no	no	yes	no	No	yes	no	no	no	
***** NO DEVELOPMENT *****												
Alder Creek	yes	yes	yes	no	yes	no	6 paved	yes	yes	yes	yes	
Crow Butte	no	no	no	no	yes	no	6 gravel	no	no	no	no	
Wind River	existing	exist/add	exist	no	yes	existing	2 gravel	no	yes	no	no	
Cooks Inlet												
Lyle	yes	yes	yes	minor	yes	no	8 paved	yes	yes	yes	yes	
Wind River	yes	yes	no	yes	yes	no	10 gravel	yes	yes	yes	no	

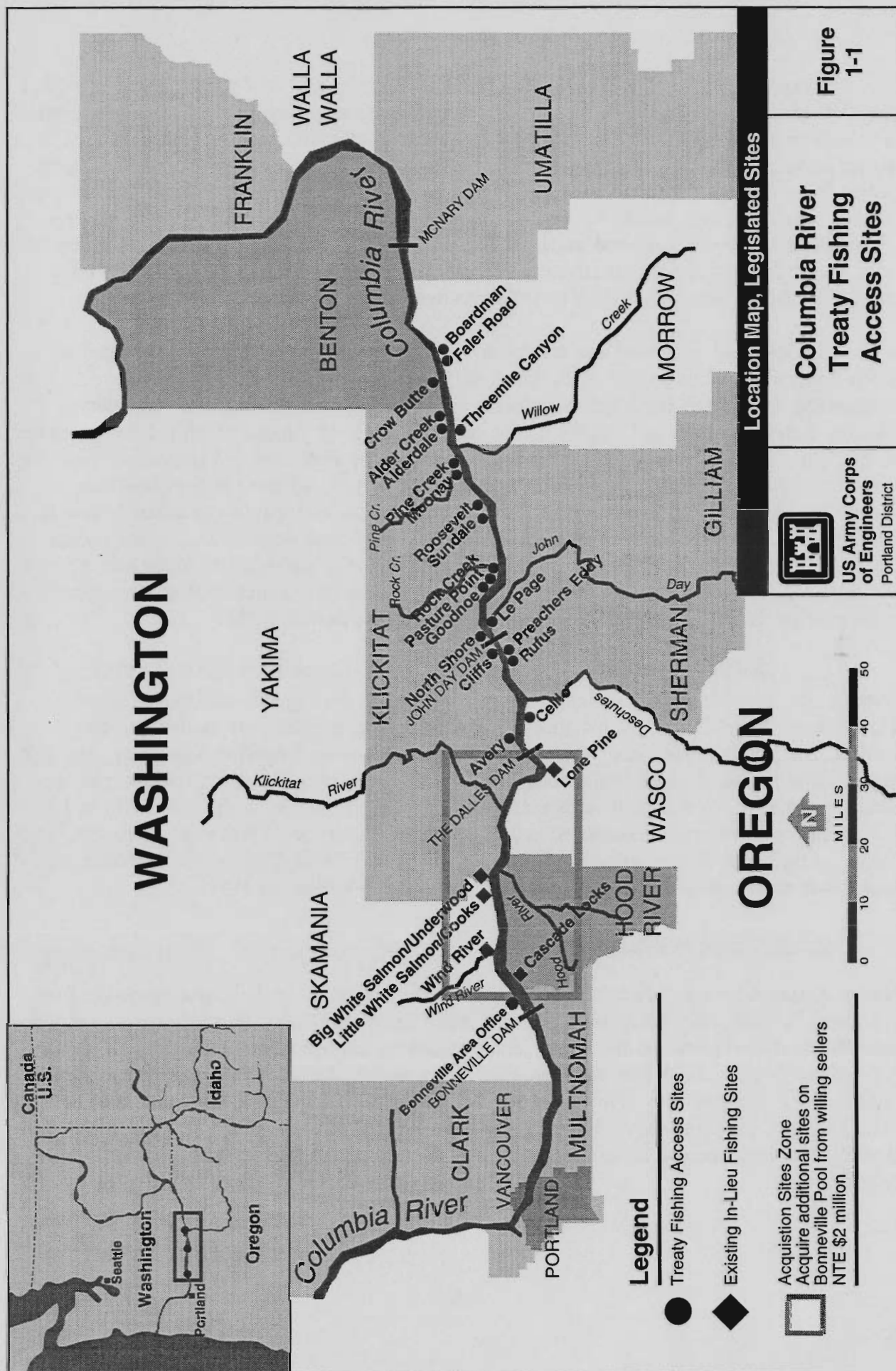


Table 2 (continued) Proposed Facilities at the Treaty Fishing Access Sites

PARK FACILITIES											
SITE	Camp Areas	Potable Water	Chlor-ination	Power/Lights	Sewer	Toilet	Shower	Shelter	Dumpster Pads	Irrigation	Plantings
Celilo	5	new well	yes	yes	drain/vault	2/1	2	no	4	yes	yes
P. Eddy	no	no	no	yes	vault	1	no	no	2	yes	yes
Roosevelt	8	yes	yes	yes	vault	3	0	no	2	yes	yes
Faler Road	6	city	no	yes	city	4	2	no	2	no	yes
Avery	no	no	no	no	vault	1	no	no	1	no	seed
Rufus	no	no	no	no	vault	1	no	no	1	no	seed
Maryhill	4	yes	no	yes	drainfield	4	4	2	2	yes	turf/plants
N. Shore	no	no	no	no	vault	1	no	no	1	no	seed
Lepage	5	yes	no	yes	vault	2	no	no	2	yes	turf/plants
Goodnoe	no	no	no	no	vault	1	no	no	no	no	no
P. Point	12	yes	yes	yes	vault	2	no	1	1	no	seed
Rock Creek	no	no	no	no	vault	1	no	no	no	no	no
Sundale	3	yes	yes	yes	vault	1	no	no	1	no	seed/plants
Mooney	***** NO DEVELOPMENT *****										
Pine Creek	no	no	no	no <sup>2</sup>	vault	1	no	no	1	no	seed
Threemile	6	no	no	no	vault	2	no	1	1	no	seed
Alderdale	6	yes	yes	no	vault	2	no	1	1	no	seed
Alder Creek	***** NO DEVELOPMENT *****										
Crow Butte	6	park system	no	yes	park system	4	4	2	2	yes	turf/plants
Wind River	4	no	no	no	vault	1	0	no	1	no	seed
Cooks Inlet	no	rehab	rehab	rehab	rehab	rehab	2	no	2	no	seed
Lyle	8 <sup>3</sup>	city	city	city	vault/city	2/2	2	no	1	yes	seed/plant
Wind River	10	yes	yes	yes	drain/vault	2	2	no	1	yes	seed/plant
Stanley R.	10	existing	yes	yes	drain/vault	2/2	2	no	1	yes	seed/plant
W. Salmon	8	city	city	yes	drain/vault	2/2	2	no	1	yes	seed/plants
Dallesport	1	no	no	no	vault	2	no	no	1	no	seed
Ringen	1	no	no	no	vault	2	no	no	1	no	seed

NOTES: 1) with lift station 2) at grade railroad crossing 3) pull up

Figure 1 -- Location Map, Legislated Sites



Lake Bonneville: The Bonneville Project is 40 miles east of Portland, Oregon, within the Columbia River Gorge. Project purposes are navigation and hydro-electric power. Formed by the Bonneville Lock and Dam at RM 145.1, Lake Bonneville has a pool surface area of about 20,600 acres and a shoreline of 130 miles. At the lake's upstream end, the Columbia River flows through the relatively open, rolling terrain of the Columbia Plateau into the steep-walled, forested gorge. Relatively small amounts of beach or gently sloping shoreline exist along the shore of the pool, and much of that is occupied by highway and railroad rights-of-way, and municipal and industrial uses. Recreation use at Corps administered-sites totaled more than 2.5 million visitor days in 1988 and over 4 million in 1992.

Lake Celilo: This lake was created by The Dalles Dam (RM 191.5) at the head of Lake Bonneville, 90 miles east of Portland and 3 miles east of The Dalles, Oregon. Authorized uses of the project are navigation and hydro-electric power, with secondary benefits from recreation and irrigation. The lake is flanked by rugged basalt ledges and steep slopes. Most of the shoreline on both sides is restricted by highways and railroads. There are some irrigated orchards and truck farms adjacent to the lake, but most project lands are devoid of tree cover. Primary vegetation consists of grasses and shrubs typical of semi-arid conditions, with small stands of cottonwood, willow and locust occurring in riparian areas. Lake Celilo is almost 24 miles long, with a shoreline of approximately 55 miles and a pool surface area of 9,400 acres. Recreation use at Corps-administered sites totaled more than 1 million visitor days in 1988 and nearly 1.4 million visitor days in 1992.

Lake Umatilla: At the head of Lake Celilo, the John Day Lock and Dam (RM 215.6) forms Lake Umatilla, a 76-mile-long reservoir situated in the rugged, semi-arid Columbia Plateau east of the Cascade Mountains. Authorized project purposes are navigation, flood control, and power production. Water storage also provides for irrigation, recreation, and fish and wildlife habitat. Extensive flatlands below normal pool elevation form shallow wetlands and embayments. Normal pool surface area is 49,300 acres. Access to the lake is limited by the proximity of railroads, highways, and basalt cliffs. There are 34,000 acres of project lands above normal pool. Recreation use at Corps facilities at the John Day project totaled more than 2.3 million visitor days in 1988 and increased to 2.6 million in 1992.

#### In-Lieu Fishing Sites (BIA)

Native Americans have fished, camped, and lived on the shores of the Columbia River for centuries. In 1939, after Bonneville Dam had been completed, an understanding was reached between the four Tribes and the Corps on a program to acquire lands to compensate for those flooded by the dam. Five sites were acquired and transferred to the Bureau of Indian Affairs (BIA). These five sites are: Wind River (23.6 acres), Cooks Landing (3.14 acres), Underwood (4.19 acres), Cascade Locks (1.6 acres), and Lone Pine (9 acres). These sites have some development (boat ramps, drying sheds, sanitary facilities). All sites are in need of rehabilitation.

### Section 401(a) Sites

Investigation of the 21 Section 401(a) sites determined that 5 sites, or nearby alternative sites, had few conflicts and could be developed and transferred to BIA in a relatively short time. A draft report and environmental assessment was prepared and distributed for 30-day review in November 1992. The final Phase One report and FONSI was published in December.

The remaining sites, requiring more coordination and resolution of more extensive conflicts, were studied in Phase Two. Some of these sites have recommended boundary adjustments and others are recommended for relocation to different parcels of Corp administered lands in order to avoid environmental and recreational conflicts. Table 3 defines the proposed development at these sites. Also see the Main Report.

### **Environmental Effects**

All actions and impacts are based on management of the Columbia River System's present conditions. No attempts have been made to estimate impacts should management of the System be altered due to changing National priorities (which could occur based on eventual recommendations of the ongoing inter-agency Columbia River System Operations Review Study), or supplements to the 1992 Options Analysis being conducted for the Snake/Columbia River System (per recommendation of the Salmon Summit) or the ESA species.

The following discussion is for Phase Two sites not previously addressed in other Environmental Assessments. Tabular material displays all Phase Two sites discussed in the Main Report. Table 4, a cumulative impacts table, reflects environmental effects from Phase One, Phase Two and the Land Acquisition Study Environmental Assessments.

### Existing In-lieu Fishing Sites.

Two existing sites, Wind River and Cooks Landing (also called Cooks Inlet and Little White Salmon River) would be rehabilitated. Existing facilities at Wind River have been burned and/or vandalized and would be replaced. The boat ramp area at Wind River would not be improved, as dredging at the Wind River acquisition site (assuming purchase) would provide needed access. High value wildlife habitat/wetland would be left undisturbed. Rehabilitation of Cooks Inlet would include general site improvements, sanitary facilities and boat access improvements, including repair of existing docks, new docks, and dredging.

### Section 401(a) sites.

**Physical.** The primary impacts on the physical environment involve disturbance of soil and vegetation from construction of asphalt or gravel access roads, and short-term turbidity and covering of benthic communities due to repair or construction of boat ramps and groins, with associated excavation and dredging, in the Columbia River/Lakes.



Table 3 -- Section 401 (a), Phase Two Recommended Sites

SITE	LOCATION/SIZE	EXISTING USE	VEGETATION/ HABITAT	WILDLIFE	EXISTING INFRASTRUCTURES
Faler Road <sup>1</sup>	Morrow, Or RM 267.5/6.9 ac	Existing park lease "Drowned" highway, structures under pool	Sage, grass, riparian trees	Moderate value habitat, Canada geese	Access road
Avery <sup>1</sup>	Klickitat, Wa RM 197.4/3.1 ac	Recreation area, public access, Columbia River Gorge National Scenic Area	Riparian along shore	Low value habitat	Gravel road, ramp, groin, parking, electric lines
Rufus <sup>1</sup>	Sherman, Or RM 212.4/2.5 ac	ODFW lease	Riparian, grasses, shrubs, plantings proposed	Very high value habitat	Access road
Maryhill <sup>3</sup>	Klickitat, Wa RM 208.2/9.9 ac	State park lease, dispersed use	Riparian, open water, wetlands, grasses, willow, shrubs, cottonwood	Moderate/High value habitat	Access road-adjacent park
North Shore <sup>3</sup>	Klickitat, Wa RM 215.9/5.5 ac	Dispersed use	Sparse sedge, grass	Moderate value habitat	Access road
LePage <sup>1</sup>	Sherman, Or RM 217.8/1.9 ac	LePage Park (Corps) Highway ROW	Grasses, sage, shade trees; plantings proposed	Low value habitat	Existing park facilities
Goodnoe <sup>3</sup>	Klickitat, Wa RM 225.4/5.0 ac	Occasional dispersed use	Grasses, sage, brush	Moderate value habitat	None, gravel access way
Pasture Point <sup>2</sup>	Klickitat, Wa RM 226.5/53.4 ac	Dispersed use; railroad ROW at crossing	Grasses, sage, brush	Moderate value habitat	None
Rock Creek <sup>1</sup>	Klickitat, Wa RM 227.5/5.0 ac	Dispersed use, RR ROW	Grasses, sage, brush	Moderate value habitat	None, gravel access way
Sundale <sup>2</sup>	Klickitat, Wa RM 236.2/5.3 ac	Sundale Park (Corps), public use, recreation	Grasses, poplar trees, marsh grasses, & cattails; plantings proposed	High value habitat	Access road, parking, vault toilet, well, boat ramp
Moonay <sup>1</sup>	Klickitat, Wa RM 247.5/0.9 ac	RR ROW, quarry waste	Grass, sage, scrub locust	Low value habitat	Access way
Pine Creek <sup>2</sup>	Klickitat, Wa RM 250.2/6.9 ac	RR ROW, abandoned highway	Grass, sage, brush, scrub locust	Low value habitat	None
Threemile Canyon <sup>3</sup>	Morrow, Or RM 255.0/33.2 ac	Quesnel Park; fishing, hunting	Sage, grass, brush; proposed plantings	High value habitat	Access road
Alderdale <sup>1</sup>	Klickitat, Wa RM 257.5/8.6 ac	Former park area - limited use; public fishing	Sage, brush, grass, shade trees; proposed plantings	Low value habitat	Access road
Alder Creek <sup>2</sup>	Klickitat, Wa RM 258.0/2.6 ac	Dispersed public use	Sage, grass, shrub brush, locust; proposed plantings	Low value habitat	Access road
Crow Butte <sup>3</sup>	Benton, Wa RM 262.0/21.7 ac	Crow Butte State Park, dispersed use	Grass, brush, proposed plantings	Moderate value habitat	Access road, utilities

<sup>1</sup> legislated site<sup>2</sup> modified legislated site<sup>3</sup> alternative site

\* Cultural resources at sites are not known; field investigation required. All sites are adjacent to the Columbia River where the Snake River sockeye and two stocks of the Snake River chinook salmon, listed as endangered are migrants.

Table 4 -- Cumulative Impacts Summary

	Phase One (4 early action)	Phase Two	Acquisition Sites	Total
Terrestrial Habitat covered by impervious material* (ac)	0	18.4	9.3	29.9 acres
Benthos covered by (1) groins (sq.ft.)	0	108,000	43,200	151,200 (3.47 acres)
(2) ramps (sq.ft.)	0	38,720	14,100	52,820 (1.2 acres)
Benthos shaded by docks (sq.ft.)	1,480	15,700	5,000	22,180 (0.5 acre)
Sites with dredging	0	6	1	7
Dredged area (sq.ft.)	0	107,500	45,000	152,500 (3.5 acres)
Dredged material (CY (one-time dredging)	0	15,000	5,000	20,000 cubic yards
Public lands removed from public use (acres)	8	189.9	0	197.9 acres
Recreation loss in average annual visitor days	0	54,400	0	54,400
25-year proj. life v.d. days	0	1.36 million	0	1.36 million days
CRGNSA-zoned lands removed from econ/resident status (acres)	0	0	34.8	34.8 acres

\* Buildings, pavement and gravel, including some existing gravel areas being reworked, enlarged or paved.

**Biological.** Construction of new ramps, groins, and docks would result in the loss of benthic organisms and some shallow water habitat, due to covering of the benthos, excavation and dredging. It is estimated that the seven new boat ramps (one each at Maryhill, North Shore, LePage, Pasture Point, Pine Creek, Three Mile Canyon, and Crow Butte) would cover approximately 4,000 square feet each, or 28,000 square feet in all, of the Columbia River benthos. Existing ramps at Avery and Sundale would be rehabilitated, and extended. At least three groins would be required, covering one-third to one-half acre each. Dredging would probably be required at several sites, but locations and quantities are not final. Sites that would probably require one time dredging include Avery, Sundale, Maryhill, Pasture Point, Cooks, and Celilo. Disposal of dredged material could be on-site (i.e. upland, the preferred method) used as fill for the ramps/groins; some in-water site in the Columbia River; or at some site of the contractor's choice, and in accordance with state and federal regulations. Approximately 15,000 cy of dredged material, composed primarily of Columbia River sand and suitable for in river placement, would be dredged and disposed. Filled area related to ramps and groins could compose about 147,000 square feet. Impacts of excavation and fill for the ramps and groins, and for dredging, are expected to be minor in relation to the total area of similar habitat within the reservoir projects.

Proposed groins could interfere with water flow and the passage of juvenile salmon migrants. Siltation and downstream erosion are also sometimes associated with groin placement. With proper siting and placement of these facilities, however, these impacts can be minimized. Non-solid structural features also may be used to avoid impacts. Loss of food production areas and cover are the primary impacts to aquatic species from ramp and groin construction. Four of the Phase Two sites have high fish and wildlife values, six have moderate values, and the remainder have low values. Mitigation for development at sites with high and moderate value may be necessary, depending on the amount and location of development. Overall, unmitigated losses are expected to be minimal. Increased access may result in increased fishing pressure; however, such increased use is not expected to result in increased harvest, since harvest levels are regulated by fishery agencies.

In the process of constructing roads, parking areas, and sanitary facilities, approximately 20 acres of vegetation would be removed and not be reestablished. This is a combined total for all 18 sites. Development of these facilities would eliminate some habitat for small mammals, raptors, song birds and deer. The amount of habitat lost is not expected to result in long-term damage to wildlife populations or affect ecological diversity as it is a relatively small amount in comparison to the total available habitat.

Threatened and endangered species, or their critical habitat, are not expected to be adversely affected by the proposed action at any Phase Two site.

**Recreation.** A potential for impacts on the existing recreational use by the public occurs at several sites under the legislated boundaries. These sites are located at Avery, Cliffs, Alderdale, Sundale, LePage (administered by the Corps) and Crow Butte State Park (leased from the Corps). Once developed and transferred to the BIA, the use would be for the four

Tribes, unless they agree to some other arrangement. The proposed action includes alternative site locations or alternative development locations for two of these recreation areas in an attempt to avoid public recreation losses. Coordination with the Forest Service to develop recreation sites within the National Scenic Area may also result in mitigation of recreation losses should the proposed action not be accepted by Congress.

The Management Plan for the Columbia River Gorge National Scenic Area (1992) recommends the Avery site for priority 1 investigation as an access site, given the limitations of the treaty fishing access site development. Development of the adjacent Corps land at Avery by the Forest Service could mitigate some, if not all, recreation losses at this site.

Impacts of the proposed action to recreation are expected to be minor to moderately adverse, depending on the site. There may be some temporary inconvenience during construction activities. However, in the long term, provision of boat ramps, plus additional parking, fencing, plantings, and signs, will separate Treaty fishing from recreationists at Celilo Park. An increase in recreation use is expected. While facilities will be separated at Quesnel Park (Threemile Canyon site), proximity is still expected to reduce recreation use at the site. Relocation of the treaty access site at Crow Butte State Park, from the developed campground to east of the marina, would avoid loss of recreational facilities and other expected conflicts.

Relocation of the treaty fishing access site from Cliffs recreation area to the western end of Maryhill State Park would reduce the space available for future expansion of the park; however, additional camping facilities at Maryhill State Park are still planned in the remaining expansion area. Placement of the treaty fishing access site at the western portion of Maryhill would reduce present conflicts between treaty fishers and boaters at the existing boat ramp at the eastern portion of the park. This would also avoid the loss of the existing recreation site at Cliffs. Development of Avery as a treaty fishing access site may add to existing conflicts between treaty fishers and windsurfers, and would reduce available recreation access sites within the Columbia River Gorge National Scenic Area, unless the Forest Service is able to develop the non-treaty portion of Avery.

Both use and cultural conflicts presently occur at heavily used LePage Park. Development of the treaty fishing access site is expected to exacerbate these conflicts because of the limited space for development and separation. Some displacement of public use is expected. However, new design of parking areas may reduce conflict.

Recreation losses due to conveyance to the BIA of Avery, Alderdale, and Sundale recreation areas would result in an estimated loss of about 50,550 average annual visitor days, or about 1.16 percent of the 1992 recreation attendance at The Dalles and John Day projects. Assuming a 25-year life of the project, there would be a long-term loss of 1.36 million visitor days. The approximate value of this incidental loss would be \$1.1 million. Loss of the public recreation facilities would reduce the maximum recreation capacity at the two projects by about 100,000 annual recreation days unless additional boat ramps are provided. About 45,900 average



annual visitor days of activity would be displaced from the sites transferred to BIA, and absorbed at other parks, mostly at Roosevelt Park and at Crow Butte State Park.

Loss of public boating access sites would be minimal for the region. Of approximately 35 boat ramps within the three pools, three would no longer be available to the public: these are Avery, Alderdale and Sundale, all in Washington. Of the 18 available boat ramps in Washington (some of which are unimproved, abandoned, or include "drowned" roads), 15 would remain open to the public. An additional boat ramp would be added at Maryhill State Park as part of that park's expansion. Informal access at Pasture Point (RM 226) would be closed to the public. No ramps would be lost in Oregon, though access at Faler Road (Boardman) and Rufus would no longer be available to the public (see Appendix G).

**Cultural.** Most sites contain cultural resources. Coordination is on-going with the four Tribes and the State Historic Preservation Officers of both Oregon and Washington. Provision of the access sites for the four Tribes should have a beneficial impact on their culture.

### **Coordination**

A draft environmental assessment, as part of the draft Phase Two Report, was circulated for 30-day public review on February 6, 1995. Comments were requested from pertinent Federal, State and local agencies; Treaty Tribes; and interested groups and members of the public, including:

U.S. Environmental Protection Agency  
U.S. Department of the Interior  
    Bureau of Indian Affairs  
    Fish and Wildlife Service  
National Marine Fisheries Service  
Oregon Division of State Lands  
Washington Department of Ecology  
Columbia River Inter-Tribal Fish Commission

A total of 14 comment letters were received. As these reviewed both the report and the EA, they are included as Appendix G, with comments identified and responses provided. In terms of the EA, two major areas were identified as concerns: impacts to fisheries, and impacts to local recreation. The U.S. Fish and Wildlife Service and Washington Department of Fish and Wildlife expressed concerns raised in their earlier review comments, including objections to developing Wind River acquisition site, various requests for design or feature changes to avoid shallow water habitat impacts, and request for more information regarding dredge and disposal activities. Counties and private individuals expressed concerns about loss of local recreation access and conflicts between the public and treaty fishers. The EA has been revised to address issues and concerns raised during the review process.

## Consultation Requirements

a. Clean Water Act of 1977: Section 404(b)(1) water quality evaluation(s) will be prepared as necessary in compliance with the requirements of this Act. The evaluations cannot be completed until quantities and locations regarding dredging and disposal sites are specifically identified. This information should be available in the Engineering Data Report, to be prepared in 1995/96, or during a later stage of plan development. Impacts are not expected to be significant.

b. Coastal Zone Management Act: The proposed action is outside the coastal zone of Washington and Oregon. No effect on the coastal zone of either state is expected.

c. Endangered Species Act of 1973, as amended: The U.S. Fish and Wildlife Service has been consulted, and has indicated that the endangered peregrine falcon and the threatened bald eagle may be present at various locations within the project area. A biological assessment has been prepared and it is expected that there would be no effect on, or not likely to adversely affect these species from the proposed action.

The NMFS previously listed the Snake River sockeye salmon as endangered and two stocks of the Snake River chinook as threatened. NMFS has reclassified two stocks of Snake River chinook as endangered under an emergency interim rule. The Corps has submitted a biological assessment to NMFS with a determination of no effect or not likely to adversely effect these species or their critical habitat. The Corps will continue to coordinate with NMFS in regard to these species.

d. Fish and Wildlife Coordination Act: The proposed action was coordinated with the U.S. Fish and Wildlife Service (FWS), and that agency provided a Coordination Act Report (CAR), dated July 17, 1991, and additional review on Maryhill State Park site dated June 3, 1992. A copy of the CAR and the Corps response are presented in Appendix E. Further coordination with FWS will occur during development of the Engineering Data Report.

e. Columbia River Gorge National Scenic Area Act: Two phase two sites (Avery and Celilo) and all six acquisition sites are within the Columbia River Gorge National Scenic Area (CRGNSA). Section 17, Savings Provision of the act is applicable to issues related to treaty and other rights of any Indian tribe, defined under the act as the four treaty tribes.

f. Cultural Resources Acts: A cultural resources investigation has been conducted and determined that numerous cultural resources would be affected. The Oregon and Washington State Historic Preservation Offices have been consulted. Field investigations will be necessary. A copy of the preliminary Cultural Resources Report is included in Appendix H.

g. Executive Order 11988, Flood Plain Management, 24 May 1977: The proposed dredging would not affect river discharge capacities or flood heights in the Columbia River.

h. Executive Order 11990, Protection of Wetlands: Development would be situated to avoid wetlands when possible. A mitigation plan for unavoidable impacts to wetlands will be developed with input from FWS following final design of the sites.

i. Analysis of Impacts on Prime and Unique Farmlands: Not applicable.

j. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Resource conservation and Recovery Act (RCRA). Sites proposed for development and transference to BIA will be investigated for hazardous, toxic and radioactive waste (HTRW). Presence of HTRW will be responded to within the requirements of the law and USACE regulations and guidance.